YACHTING

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The British "Sixes" *Quixie* and *Sonia* leading *Da-Du* on the first round of the course in last year's international regatta at Cannes.

Yachting on the Riviera

Colorful Regattas with the Yachts of Many Nations Participating. Several American Entries for this Winter's Events

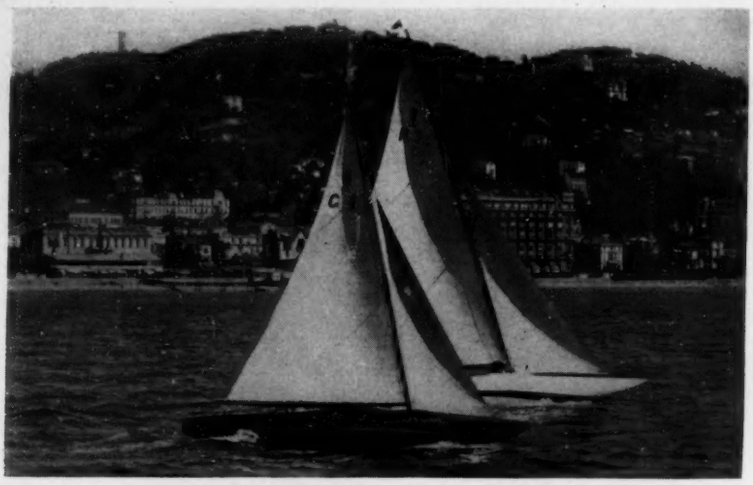
By SHERWOOD HALL

THE visions and memories conjured up by the words, "The Riviera," are rarely identified with yachting, unless it be that the *Cutty Sark* or some other of the floating palaces which linger along the "Azure Coast" in the winter season comes to mind. To most of us the words mean a melange: Monte Carlo's Terrace in the sunshine, and roulette; Nice with its carnival and the Promenade des Anglais; Cannes and a stroll along the Croisette, or the Greek Syndicate at the baccarat tables. It is true that there have always been yachts here in the winter, and in the days of King Edward and the Russian Grand Dukes occasional races were held with the big sloops or schooners out around the Lerins Islands, or from Nice to Genoa. But it was never a sport that the ordinary visitor could watch from the shore or in which he could have a part.

But in the last few years all this has changed and rarely a week goes by without racing in small sailing craft somewhere along the coast, which may be easily seen from the shore or followed in one of the many speed boats for rent in every harbor. The ports are still crowded with an assortment of cruising yachts, but to them have been added a growing fleet of racing craft of all the popular types; eight- and six-metres, eight-fifties and six-fifties, the five-metre French Regional Class, and the babies or kindergarten of the fleet, the Minimas, (Minima Monotype de la Manche), with an over all of four metres. The recent publicity which has made Antibes, Juan-les-Pins and Cannes as well known in summer as the Lido, Biarritz, Deauville or Le Touquet, has also helped to fix this vicinity as a year-round yachting center which has few equals.

The starting hut of the International Yacht Club, on the point of the Croisette, near the Palm Beach Casino. The black squares on the roof are the minute signals.

Where in America are there sailing races with ten to fifty entries every week in the year? The Minimas are racing off the Croisette at Cannes three times a week, as a rule, and with 25 of these sporting little craft in the



Pan (G-4) and *Sirena* (K-3) finishing the first day at Cannes. The *Pan* is the first German boat to race in the Mediterranean since the war, and was one of the most beautifully finished boats in the regatta. These yachts were hauled out several times during the Cannes regatta for fresh pot-leading, and then covered with canvas so that their lines could not be copied.

class they make hot competition. Even in the world famous climate of Southern California they lay their boats up for several months during the winter, while here, from November until May, the local fleets are nearly crowded out of their home ports by every yacht owner from the British Isles and Northern Europe who can find a good excuse to get away for a cruise in the Mediterranean. In Cannes, during the busy season, one must apply for a berth some time ahead to get one at all. The story is told that during the International Regatta last year the crew of a yacht which had been in the harbor for two weeks put in a day of hard labor, with the help of a diver, in removing five anchors and chains from their own cable before they could leave port!

Starting at Marseille and running beyond Genoa to Spezia, one has over 300 miles of the most beautiful coast in the world, with several groups of islands just off the shore, and Corsica as an objective for the deep water sailor, 105 miles from Cap d'Antibes, or 51 miles from the nearest point on the Italian Coast. Sailing direct from Marseille to Cannes one covers about 120 miles, and another 145 from Cannes to Genoa; but by following the coast you have a really enjoyable cruise with over twenty small harbors to put into with your ketch or motor cruiser, the longest stretch of open water being the 40 miles between Porto Maurizio and Savona on the Italian Riviera. Although Cannes is the acknowledged center for yachting and racing, each little harbor boasts a few sailing and motor craft, so there is always plenty of company wherever you stop for the night.

The Mediterranean may rightly be called the cradle of yachting. From the beginnings of its history sails have dotted the blue of its waters. All along the coast are the remains of ancient races who, arriving by boat, stopped to enjoy the climate and built their villas or towns where they could watch the ships go by. At Antibes the flying boats from Corsica and North African ports now zoom overhead at night, waiting for the signal that the harbor is clear so that they may land where Greek ships lay 2500 years ago. A French Naval Air Station trains its men at Frejus where Julius Caesar built a famous port and dockyard, and the hangars are on the spot where three hundred Roman galleys were moored. Marseille, St. Tropez, Antibes and Nice were founded by Greek traders; Cassis, Toulon, Frejus, Cannes, Beaulieu and Monaco were selected as harbors by the Romans a few hundred years later.

According to Captain Leslie Richardson (whose interesting book, "The Riviera Coast," should be in the library of every yachtsman who thinks of coming here), the Romans were never very good sailors. As they came along this coast on their way to Gaul, Spain and Britain following their predecessors, the Phoenicians and the Greeks, they hugged the shore and were most unhappy when they lost sight of land. Consequently, they picked bays with sand or shingle beaches up which they pulled their galleys every night so that they could all sleep in shelters on the shore. It was the Genoese and Venetians from Northern Italy who later made the reputation of the country as a maritime nation and produced such world travelers as Columbus and Marco Polo. The fact that there is no tide in the Mediterranean has been a boon to sailing from the earliest days as boats could easily be beached, there was little worry about currents, and the mooring of craft in bays or harbors offered none of the difficulties met with along the Atlantic Coast.

Think of the romance in cruising along a coast where every headland has the remains of a watch tower built as a lookout for Saracens, and every little village has its history of adventure, naval exploits, piracy, or bombardment! The Maritime Alps crowd down on the shore

Closely bunched. Start of the "Eights" at the Juan-les-Pins regatta. In this class the *Sirena*, designed by Fife for use on the Mediterranean, proved the best of the season.

F. H. Prince's "Eight" *Zip II* in action off Cannes. The wind was so heavy that the French "Eight," *Enchantment IV*, split her mainsail.

Along the Jettée Edward VII, showing the method of mooring the yachts. The first four flags are American, French, British and Argentine.

The speed boat garage at Cannes, where fast runabouts may be chartered to follow the races or for jaunts along the coast.

for miles and each rocky peak of the foothills carries a walled town or village, built in the days when everyone retired from the waterfront to the citadel for safety at night. In some ports you may find Roman ruins, and in all of them you may study a thousand or more years of history at first hand. The men of your crew are not French, but Provençal, a dark race with their own queer speech and the blood of Greek, Italian, Moorish and Gallic ancestors. Even their fishing boats which line the beaches are often exact replicas of those used by their seafaring progenitors ten or fifteen centuries before, although some are equipped with truck motors left by the A. E. F. and sold at Marseille after the war! And if you leave the water and go along the coast in a car, you travel the old Roman road, the Aurelian Way, and follow the route of Hannibal, the Caesars, of Napoleon, of the popes making the journey from Rome to Avignon.

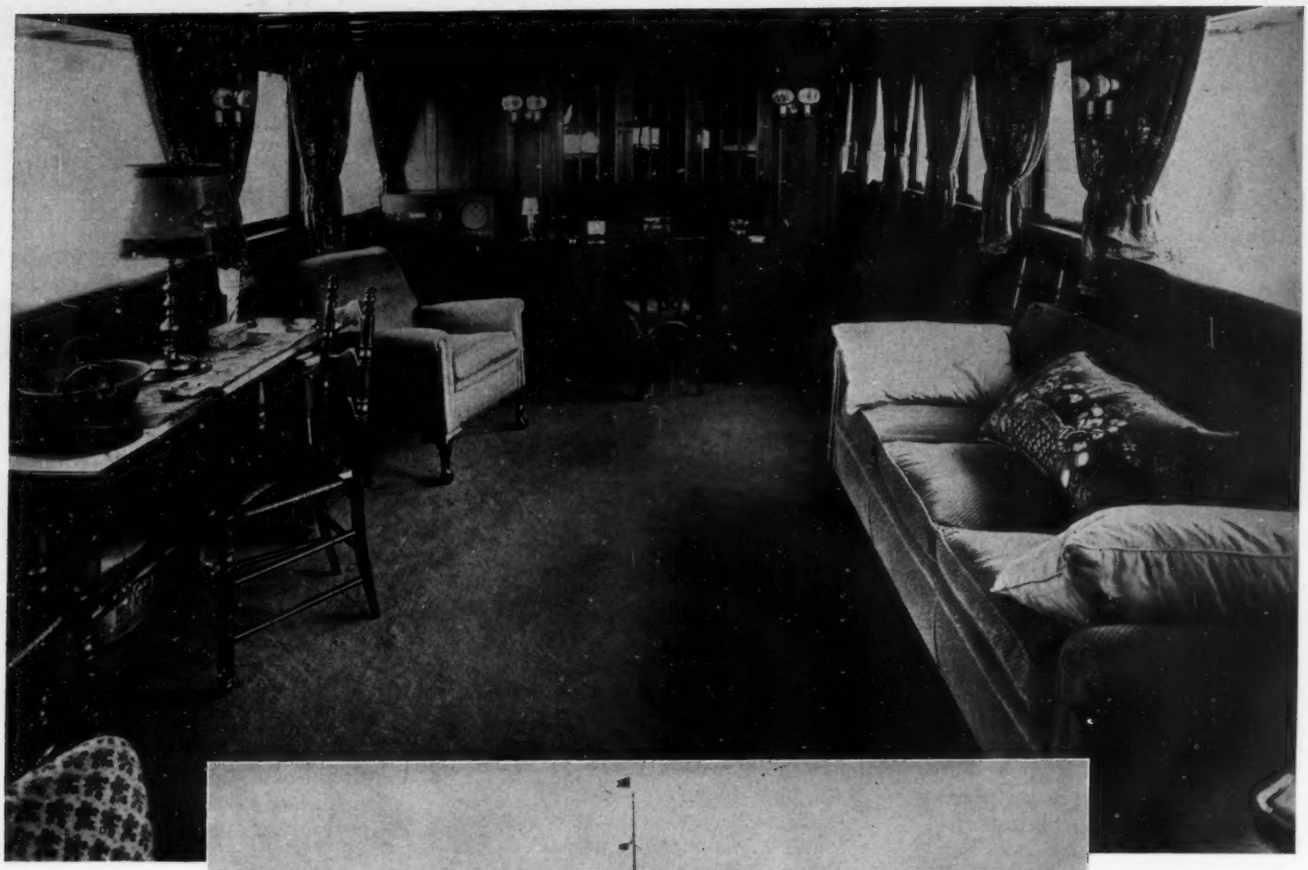
One of the Minima Class on the beach at Cannes. Note the ease with which they can be handled, even with 175 pounds of lead on the keel.

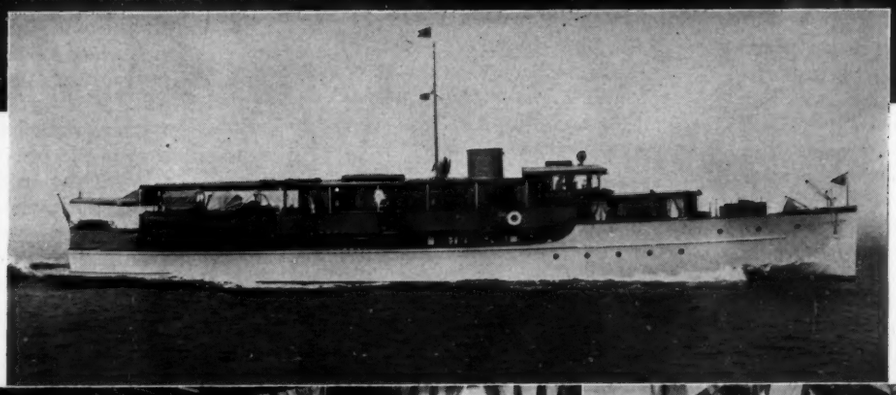
All the harbors, except Toulon and Villefranche, are very small, but the lack of tide allows the boats to be moored alongside the jetty or breakwater, generally with the stern in so that one can walk along a gangplank and on to the quay. This allows the yachts to be sandwiched in side by side, and a great many can be accommodated even in the smallest ports. The harbors of Cannes, Antibes, Nice and Monaco could all be fitted into Marblehead Harbor, and yet Cannes alone, during the International Regatta, shelters almost as many craft as Marblehead during Midsummer Week. Beginning just inside the end of the breakwater, the largest yachts of all nations are lined up much like the cruisers at the Detroit Yacht Club pier; steam and motor craft, and the big three- and four-masted schooners such as the *Flying Cloud* and Mme. Heriot's *Ailée*. Next to them are the smaller sailing and motor cruisers, decreasing in size as one goes toward the shore. Anchored out in the harbor are all the racing yachts and small fry, while hauled up on the sand beach are the fishing boats, many of the Minimas, which are kept out of water between races, and the yachts out for repairs on the five marine railways, sometimes three on a single track.

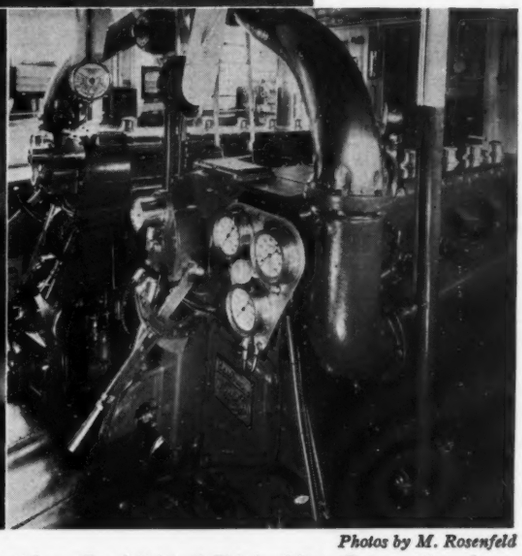
One of the interesting sights is the large fleet of speed boats, all for hire like taxicabs for trips to the islands to inspect the prison of the "Man in the Iron Mask," or other marine jaunts up and down the coast. These boats are kept in beautiful condition, some of them with twin screws, and all with powerful motors and a good turn of speed, although not as fast as the Baby Gars and Chris-Craft that are growing in number here every season. One American appeared last summer with three Dodge Watercars of various sizes and speeds, but as he was not able to drive them tandem or three abreast he finally sold two and took the (*Continued on page 124*)

Finishing touches to the racing yachts on one of the many marine railways on the beach at Cannes.

Solana, A Popular Type of Fast Cruiser







Photos by M. Rosenfeld

In the 106-foot cruiser *Solana,* owned by W. C. Robinson, of Pittsburgh, the builders, Consolidated Shipbuilding Corporation, have developed a popular type of fast Diesel yacht for coastwise work. The two deckhouses and the raised pilot house have been combined with a pleasing profile. The reproductions show the lounge, in the after deckhouse, the dining room in the sunken deckhouse, and the engine room with the two 300 h.p. Speedway Diesels which drive *Solana* at 17 m.p.h. There are also three double staterooms below, with adjoining baths.

We Launch the *Tuaraatai*

By PAUL J. HAAREN

GREAT "to-do" at Faatoai this morning. The *Tuaraatai* is going to be launched.

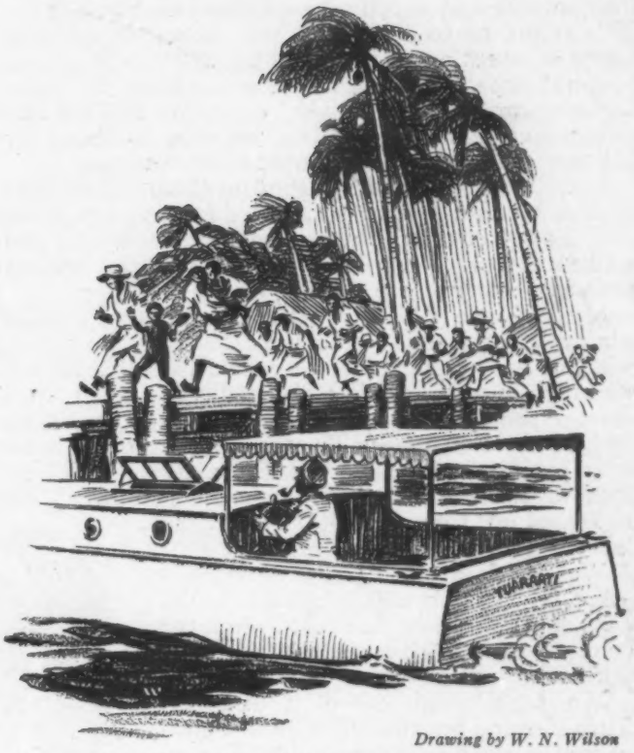
"Tuaraatai" in Tahitian means "sea devil." But this *Tuaraatai* is a motor boat — and a good one.

Mr. Philips owns it. Commissioned Herreshoff to design it. Then had it built in New Zealand. About forty feet long. A deck cruiser. Long and lean. A six-cylinder Buffalo engine occupied most of the decked cabin forward. The cockpit aft had a fixed canopy over it that was so low a person could not stand upright under it. Every stick of timber in it is of one piece. Every plank and every stringer clear New Zealand lumber from stem to stern. Not a joint or a knot in its planking her whole length. A few years ago, when the *Tuaraatai* was new, she was in the water more often than out. But lately she has been spending a lot of her time in her shed. Mr. Philips seemed to lose interest in things for a while. But the mood had seized him lately and this morning the *Tuaraatai* is going to be launched.

If you've ever been in Faatoai in Moorea, you will remember the *Tuaraatai's* shed. But maybe you've never been to Moorea — or Faatoai. Well. Faatoai sits back from the beach a way. First a reef; then a lagoon; then the beach; then a coconut grove; then Faatoai. A road, parallel to the beach, runs through the village. Walking along this road, just beyond the Chinese store, you come on the village schoolhouse. Beyond the schoolhouse is a green lawn or common. Turn down this common to the right and you run on to a road that leads down to the village wharf. You pass through what looks like an arsenal. Guns and barbettes from the French gunboat *Kersaint*, which rammed on the reef some years back — and which constitutes a tale in itself. Then past a clump of burao trees, and there's the wharf. Sticks out into the lagoon like a "T." About seven feet wide out to the head of the "T," when it widens into a little platform about twenty by twelve feet. At the base of the toy wharf, right under the clump of buraos, is the *Tuaraatai's* corrugated iron shed. A couple of iron rails run from the shed, across the narrow strip of beach and into the water. The *Tuaraatai* sits on her cradle in the shed. And it's been a long time since she was last out of her shed.

The news that the *Tuaraatai* is to be launched spreads from Mr. Philips' front porch all through the village. It's not exactly news. For Mr. Philips has been observed making many trips along the path through the mango trees behind the Chinese store leading to the wharf. He also has been observed spending a lot of time in the *Tuaraatai's* shed. Sounds of scraping and hammering. Many cans of paint going in full and tossed out empty. So prying eyes are at last rewarded and the word passes round that the *Tuaraatai* is coming out of her shed. Everybody in the village who is not working comes down to watch. Very few work in Faatoai, so practically the whole village is there. All except Imi, who left not long ago to see if he could catch himself a wild pig or maybe a couple of chickens back in the hills.

If you knew Imi you'd understand why he chose this particular time for his pig hunt. Imi has his little idiosyncrasies. Imi was born with a club foot. But despite this he is a very powerful man. But Imi was also born with a very strong antipathy towards work. Few Tahitians like to work. Imi less than any. Launching the *Tuaraatai* means much work. Imi knows this very well. Hence the curiosity about the pig or chickens up there in the hills. Why all this dissertation on Imi, you ask? You'll learn that later; when the *Tuaraatai* is safely launched and ready for a trial spin.



Drawing by W. N. Wilson

". . . with the first roar of the motor the village leaped to life. Down to the wharf tumbled the people."

The doors of the shed are swung back. Hinges pretty rusty — almost gone. It's been a long time since they were swung open. Tackle is rigged to the cradle. Wheels are greased. Poles are applied by husky native arms and shoulders to start the cradle along the rails. It starts hard. Rails and wheels are rusty. But at last it gives. Many shouts. A concerted heave. Extra arms and shoulders to the bow and sides of the *Tuaraatai*. Women; children; all shoving and grunting. The wheels turn. The weight of the boat helps a bit. Boat and cradle gain momentum. Then, with a gentle rush down the rails and into the water goes the cradle and the *Tuaraatai*. Great cheers and shouts. Great glee all around. The *Tuaraatai* is in the water, floats off the cradle and rides proudly in her own element. And then the folks turn to— to count up the damage. That's the way things are done on Moorea. First they're done. Then the damage of doing is looked into and discussed.

But nothing much this time. One toe crushed. But only a little toe; and only crushed a little. The native who owns the toe was so intent on shoving that he forgot to pull his foot off the rail when the cradle moved down to the water. He yells a little, sloshes his foot around in the salt water for a few minutes, then wraps the toe around with a particular sort of leaf that is good for this sort of thing, ties it up with a bit of rag torn from the bottom of his wife's dress and everything is all right.

A few hands are burned from hanging on to the rope attached to the cradle. A few barked shins; mostly on children who stumble over the rails and fall on their

noses in the excitement. The burned hands are spit on by their owners and wiped off on dresses or pants seats. This seems to fix them. Barked shins and bumped heads or noses are easily fixed by a few well placed parental slaps. Slaps that are more a gesture of rebuke for being careless and possibly hurting Mr. Philips' nice rails rather than carrying any real sting in them, for Moorean parents do not mistreat their children.

The *Tuaraatai* is in the water. But there still remains work to be done. The boat is moored fore and aft. A line over the bow to the wharf. Another astern to a buoy and sunken anchor. Then she won't rub her paint against the wharf while we are working on the motor.

Mr. Philips is in his glory. It's hot under that tropical sun anywhere at all. But in the cabin with the motor, with the sun streaming down on the deck overhead, it is well nigh insufferable. But Mr. Philips is down there most of the day. With nothing on but a cotton singlet and a pair of dungarees. Sweating; swearing; oil in his eyes, grease all over him. And I do what I can to help. And when the job is done, everything adjusted and tightened up, I am thankful. The engine is ready to be turned over.

We give it a twist. Another and another. This sounds easier than it is to do. Lots of compression, that motor. And the lever to turn it gives none too large a purchase.

We get a cough out of it. Another. Turn it over a few times to suck in a good charge of gas. Give a few squirts of priming through the petcocks. Pull up the needle valve of the carburetor a few times. Then switch on. A powerful twist on the lever and, *Hooray!* she catches on. The motor starts off with a rush that threatens to tear it loose from the engine bearers.

Imi, the indispensable.

Mind you, this isn't the same day the *Tuaraatai* was put overboard. That happened a good four days ago. After the launching the natives hung around to see what would happen. But when they saw we were foolishly spending our time tinkering with the engine instead of immediately taking a spin up and down the bay, they lost interest and dwindled away. And a few kids left hanging around to peer at us down the hatch, their heads blocking out light and air and making it all the hotter down in the engine room.

But now, with the first roar of the motor the village leaped to life. Down to the wharf tumbled the people. Where they had been keeping themselves, God only knows. Seems as if they had been hiding back there beneath the coconut trees just waiting for this moment to come. But wherever they came from, they came in droves. And strange to say, with them came the redoubtable Imi.

You remember, I told you about Imi. That somehow he was strangely missing when the rest of the village turned out to help launch the *Tuaraatai*. The non-appearance of Imi at that time and his sudden appearance now simply goes to prove that when it came to judging his boating moments Imi knows his onions. For Imi knew very well there would be no boat riding immediately after the launching. He knew that as well as he now knew the roar of the motor meant a trial spin up and down the bay was about to take place. And as Imi was helmsman, quartermaster and pilot, all rolled into one, how could a spin be spun without Imi perched on his stool there behind the steering wheel? Imi came limping down to the wharf. On his head was his yachting cap. Looked like a German student cap. Where he got it, God only knows. In his mouth his pipe. A curved stem masterpiece. Where he got that was well known. He didn't exactly steal it, but if you search your memory you will remember that the tourist from the States who had stayed over a couple of weeks a year or so back, had been in the habit of smoking just such a pipe. Maybe he had given it to Imi in return for services Imi had rendered him. Services that had consisted mainly of organizing the village girls and young bucks into throwing impromptu but earnest dances of moonlit evenings in the clearing behind the himene house.

Over one arm was his coat, a heavy French army coat. Imi had been in one of the labor battalions during the war. Maybe that's where he developed his distaste for work. Anyway, he still had his coat, and for fear you will ask why such a heavy coat on this blistering day under that tropical sun, I can only ask you to wait and learn for yourself.

Imi came slowly. He had a club foot remember, and was picking his way very carefully and deliberately. This despite the fact that I have seen him run fast enough to catch a small boy and administer a cuff on the ear when that small boy thought it was safe to jeer at Imi. Imi came slowly and carefully. There were two reasons for this. First, as he was the helmsman, the boat couldn't start without him behind the wheel; therefore, he could afford to take his time. Second, he was very clever in timing his pace so that just about the time he had walked down the wharf and stepped aboard the *Tuaraatai*, everything was in shape to shove off. Under these conditions Imi had but to take his place on the stool behind the wheel, wait for Mr. Philips to throw the engine into reverse, give the wheel the proper twist to swing the stern clear of the wharf, and then full speed ahead.

Imi knew every reef and sand bar in that bay as nobody else did. He didn't care how fast the motor turned over. That was Mr. Philips' job. Imi's was to dodge those lumps of coral that you saw on the bottom only after the *Tuaraatai's* hull had missed them by inches. And how Imi dodged! He twisted the wheel this way and that. The *Tuaraatai* squirmed along first on one beam, then on the other. Up and down the bay. Plenty of speed. Plenty of spray. Plenty of wash. A long sweeping curve at the further end. Back up the bay following the white wake we left behind us as we dashed down before. We dodged that bad hummock of coral near the wharf. A sharp swing around. The motor slows down. The *Tuaraatai* nestles its full length down into the water again. It nuzzles up to the wharf. A line is made fast. The engine reverses. The stern line is picked up off the buoy. And all this manouvering without one word passed between Mr. Philips and Imi. It's always done the same way. Each knows what's to be done and when to do it.

The trial spin is over. Tomorrow we go to Tahiti for a visit. Imi says it's O.K. with him. So he stows his coat in a locker on board before he scrambles on to the wharf and limps away. He didn't need it today but he probably will tomorrow.

And now for Tahiti.

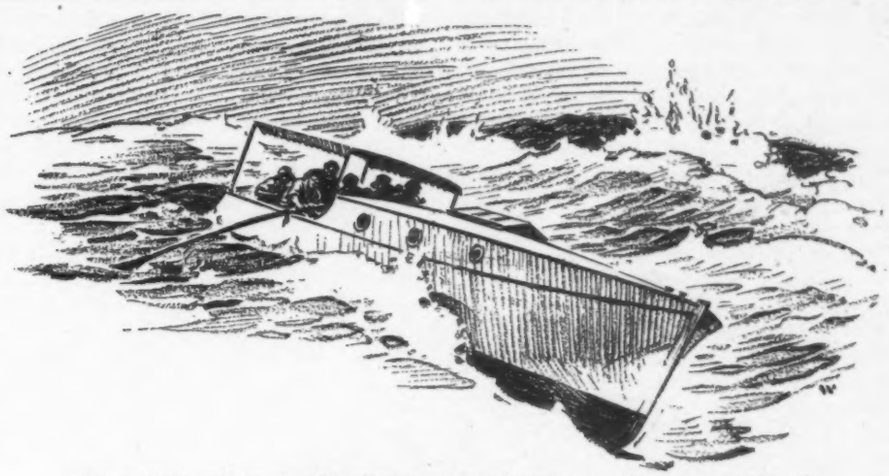
When we get down to the wharf in the morning it looks as if a small sized convention is in full blast. The wharf is crowded with natives. Not only is the wharf crowded but so is the *Tuaraatai*.

The boat has already been pulled alongside the

wharf. No need guessing who was responsible for that. Plenty of willing native hands about. There sat Imi on his stool behind the wheel. Imi hadn't helped pull on the lines. But he had directed affairs. The stern line had been cast off. A turn or two of the bow line had been taken round one of the palm tree piles that not only served as a bitt but also held up one corner of the wharf itself. The *Tuaraatai* was floating free — ready to go. And it probably had been floating that way since shortly after daybreak. Imi loved to go to Tahiti. To go there behind the wheel of the *Tuaraatai* was Imi's pride and joy. This was distinctly Imi's day. Imi saw to it that all was in readiness to go the minute Mr. Philips stepped on board.

Mr. Philips gave me a nudge and we both laughed.

First there was the excess baggage to be got rid of. The cockpit was filled to overflowing. Natives crammed in wherever they could be crammed. Not only young bucks and boys, but women as well; women with babes in arms. We cleared the cockpit. Only a favored few relatives were to go. And even that left none too much room to move about in.



"We pulled on the sweeps for all we were worth now, even the women helping."

Tata was to go, of course. Tata was Mata's brother, and Mata was Mrs. Philips. Then there was Tata's wife, who was carrying Tata's first born, his son and heir. Also there was Marceline, Poé, Matahira, Temoi, Mauri, Faatini, etc., etc. But we finally got the crowd thinned down enough to give us elbow room. Mr. Philips dodged down into the engine room. And that was the last we saw of him the whole trip over. He owns the boat. He buys the gasoline. He foots all the bills. And he takes all his cruises squatting down there in the hot stuffy engine room reeking with gas and oil fumes. The engine gave a cough. It started. The bow line was cast off. The clutch thrown in. Imi spun the wheel. We were off.

Away from the wharf. Shrieks of glee and shouts from those on board. The same from those left behind on the wharf. They were sorry they couldn't go. But they got what fun they could cheering us off. Such is Polynesian nature.

Up the lagoon. Around the jagged piece of coral that lies unseen inside the reef pass. It is unseen to all eyes but Imi's. Imi misses it by a few feet. But in Polynesia a miss of that kind is as good as a mile. And who am I to venture criticism of Imi's helmsmanship? Out through the pass and on to the broad Pacific itself, our wake slapping against the iron sides of the heeled over *Kersaint* that lies rusting and dejected on the reef where she piled up years ago.

Moorea is only fourteen miles from Tahiti. But Faatoai is on the side away from Papeete. Therefore we have to go around Point Tamai where the tide and wind always kick up a chop. It's not long before we have raced up along the coast outside the reef and plunge head on into the rough water off Tamai. But there's no slackening of speed. Imi just sits there on his stool, cap on head, curved pipe in mouth, and twists the wheel to meet each cross sea. He doesn't know why or how much he twists the wheel. He just twists it this way and that. But always he twists it just right. The boat slides up the face of one wave and down on the other side. Slithers, slides, three-quarters on to the seas. No pounding, no slapping. Just a smooth leaping and plunging, the boat always in the water and very little racing of the wheel.

But the spray is flying about. Imi has need of his coat. He shouts for it. A native leaps to do his bidding and fetch it. And that's where we discover the stowaway.

It's Gauthier. A little imp of a native boy. The real Gauthier is a photographer who keeps a shop in Papeete. If you have any photographs showing the native belles of Tahiti in various poses that somehow look too "posey" — photos taken against a painted canvas background and with the girls lying about in supposedly graceful attitudes — look closely at the lower right hand corner. Chances are ten to one the word "Gauthier" is there. Gauthier "cleaned up" doing that sort of stuff. Picture post cards for the tourists. Made enough to retire on. Sold his shop and returned to his dear France to live a life of comparative ease. How the name came to be bestowed as a nickname on the little imp I don't know. But he's known as Gauthier all over Moorea, and general devilment of all kinds is his *forte*.

Imi's coat is pulled from the locker under the seat where it was stowed. And with it comes Gauthier. Ejaculations of astonishment from all the natives. Sharp words from Imi; very sharp words. But Gauthier just sits there and grins at everybody. And when the surprise subsides a bit he gathers himself up to get under everybody's feet and in everybody's way. But he makes a mistake in crawling into the engine room. A yowl and he comes scampering out on all fours. Sacred territory in there and like as not Mr. Philips let him touch the end of the nearest ignition lead.

By this time we're almost in the harbor at Papeete.

At first Tahiti is just a towering outline, its head lost in the clouds. Then we began to see the deep shadows and high lights of sunlit ridges and valleys. Then the deep green of the fringeland. Then the white line of the reef.

Couldn't see the town at first. So hidden beneath the trees. But a little forest of masts showed where it was. Trading schooners in from their runs to the Marquesas or Paumotus. Loading and unloading what they brought or are bringing to those islands hundreds of miles away.

A white marker high up on the hills. Another one lower down, on the water's edge. Get the two in line and you will be heading straight through the pass in the reef. We don't have to cut things so fine. But the steamers entering the harbor have to be mighty careful lining

(*Continued on page 116*)

A Stormy Day on the *Stornoway*

Cape Cod Bay Gives a Small Boat a Thorough Test

By Lloyd Nichols

WE were bringing the *Stornoway* from the Dauntless Shipyard in Essex, Conn., to her home port in Manchester, Mass. The crew — Nick, owner and skipper, Johnny and Sandy. The ship — a 33-foot cutter-rigged auxiliary sloop, designed by the late Colin Archer on the lines of a North Sea life saving patrol boat.

Leaving Cataumet, the objective for the day's run was Scituate; but these plans were changed before much of the distance had been covered. The day opened bright, with a fresh northwest breeze. The engine turned over smoothlyaswewent through the Cape Cod Canal. At the easterly entrance, storm flags were flying; but the glass was steady, and our course was mainly in the lee of Manomet and Plymouth Highlands. We were making good time under two-reefed mainsail, forestaysail and jib, having turned off the motor at the breakwater. About seven miles from the canal, the wind freshened considerably and began to head us.

Stornoway, a cutter-rigged sloop, 33 feet over all, with beam of 11 feet and draft of 5 feet 10 inches. She is a duplicate of a pilot cutter drawn by Albert Strange, from a larger boat by Colin Archer, the lines of which appear in Claud Worth's "Yacht Cruising."

On leaving Cataumet, we were towing two tenders; one, a 13-foot Salisbury Point dory, the other a 10-foot round bottomed cedar tender of the familiar standard type. As being the more valuable, the tender was made fast astern of the dory to give her greater freedom. Why did we not lash the tender on deck? Well, the deck had been freshly varnished, and we did not wish to scratch the rail — false economy. As the sea continued to make, the tender shipped considerable spray, and made heavy weather of it. About ten minutes later, it began to blow straight out, and continued to head us. Under this shortened rig, it was necessary to luff continually, and progress became slow; and even then the lee rail was a foot under. A promised storm trysail had failed to be delivered; there was no way of shortening sail further abaft the mast, so it was off with the main, and on with the power. The engine started, as usual, on a quarter turn. Then Nick swam out on the bowsprit, and smothered the jib. It was "one hand for himself and one for the ship" there; to his neck one minute and ten feet in the air another. The *Stornoway* went along in good style.

The cedar tender, however, was not doing so well; and what with the increasing wind (over 60 miles an hour, as we learned later) and the certain prospect of swamping and losing both tender and dory, we decided to turn back and make for the canal. We were perhaps eight miles from the breakwater. The sight of a big fisherman to the north of us, running under very much reduced canvas, also strengthened our belief that the further we went the worse would be the going.

Nick wore ship. Away we went under engine and forestaysail, and the wind, which had hauled around to head us, was now on the starboard quarter. We were making good time toward the canal, against the tide. Then the engine sputtered, coughed, and died. Nick went below, and cranked vigorously. Usually responsive to a quarter turn of the flywheel, not a kick would the engine give. No gas at the carburetor. Strainer, next to carburetor, overhauled. No gas in strainer. Diagnosis —plugged feed line. Last season's residue in the tanks had been stirred up by the seaway, and had plugged the outlet. An hour's work under closed hatches, in a reek of gasoline fumes, and Nick had cleared the line and spun the engine. Salt water spurted out of the petcocks. The water had splashed into the exhaust, and while the boat heeled to the gale, had worked its way around the U-shaped portion of the pipe. "Through with the engine," the skipper reported.

All this time the *Stornoway* had been jogging under forestaysail only. Had we had the storm trysail, we could eventually have tacked into the canal, even though the wind was more to the westward at the canal than it had been off Manomet. Without it, we cast over the 75-pound anchor on a scope of 40 fathoms of cable, and tried again on the engine. The anchor dragged; the engine was drowned. The wind had by now risen to 65 miles an hour; so we abandoned the idea of making for the canal, and bore away for Provincetown.

When Nick emerged from the engine room, Sandy greeted him with the good news that the tender had finally given up the struggle. It was bottom up and awash. So the skipper pulled the dory alongside, jumped in, and cut the tender adrift. There was no chance to save it.

Having decided that there should be sail of some kind abaft the mast, the gaff topsail was dug out and set upside down on the main boom. With this little triangle to help out the forestaysail, we made better time on our course for Provincetown, some 20 miles away. Blowing great guns it was, with 10- and 15-foot

(*Continued on page 112*)

The Millennium for Outboards

A Proposed "Platform" for the Revision of Government Regulations for Outboards

By CHARLES F. McKIVERGAN

EVERYONE connected with the sport of motor boating, it is safe to say, recognizes the importance of the position which the outboard motor boat has achieved in the boating world. Designers, builders, owners and operators of motor craft have long since ceased to be surprised at the unprecedented popularity of the outboard-driven craft. The success with which these diminutive boats fill a highly diversified rôle explains why outboards exceed, in number, all other types of motor craft, and accounts for the splendid impetus which has come to the sport from this source.

At present the outboards are governed by federal regulations drawn up and enacted into law at a time when no more than a slender handful of outboards were in existence. In those days outboards presented no special problems and there were few enthusiasts to champion their cause. Motor boats in the eyes of the law, the outboard was regarded as subject to the requirements that bound all regular motor boats and, in the absence of united protest, the outboards have remained under this control.

That we may fix clearly in our minds the present situation in regard to the regulations governing outboards, it might be well to review briefly the federal requirements which outboards must meet today. We shall consider the requirements in four logical divisions: registration and numbering requirements; equipment requirements; navigation requirements; requirements for carrying passengers for hire.

The Act of Congress of June 7, 1918, requires that "every undocumented vessel, operated in whole or in part by machinery, owned in the United States and found on the navigable waters thereof, except public vessels and vessels not exceeding 16 feet in length measured from end to end over the deck excluding sheer, temporarily equipped with detachable motors, shall be numbered." This quotation makes it clear that all outboards are excused from registration requirements and from carrying an identification number, with the exception of those outboard-driven craft which exceed 16 feet in length and are operated on navigable waters.

The Act of Congress of June 9, 1910, stipulates the minimum equipment to be carried on motor boats operated on navigable waters of the United States. The act, moreover, defines the term "motor boat" so as to make it obligatory for the enforcement authorities to regard outboards as motor boats and to hold them bound to observe all the regulations set up by the act. The term "motor boat," as used in the act, includes "every vessel propelled by machinery and not more than 65 feet in length except tug boats and tow boats propelled by steam." Clearly enough, outboards are propelled by machinery, none of them exceed 65 feet in length and they are not propelled by steam. The act, therefore, definitely includes all outboards operated on navigable waters as subject to the requirements laid down in the act.

As a direct result of this undebatable definition of what constitutes a "motor boat," all outboards which are less than 26 feet in length and are operated on navigable waters must be provided with all the equipment prescribed for motor boats in Class One. This minimum equipment includes a whistle or other sound-producing mechanical appliance capable of producing a blast of two seconds or more in duration and heard for a distance of at least one half of one mile; a life preserver, belt, buoyant cushion, ring buoy or other approved life-saving device for each person on board, including all children and babies; approved means for extinguishing burning gasoline; and, when the craft is operated between the hours of sunset and sunrise, a combination red-and-green lantern set up in the fore part of the boat and a white light aft, each lighted and affixed to the craft in the prescribed manner.

If an outboard owner is inventive enough to venture forth in a craft which exceeds 26 feet in length (it has been done), he is compelled to devote some of the additional available space to the carrying of a fog horn and a fog bell. In addition to carrying these extra items, the owner of such an outboard must see to it that the rest of the prescribed equipment is of larger measurements than is the case on outboards of less than 26 feet in length. It is sufficient for our purpose, however, merely to note the minimum amount of equipment which must be placed in an outboard, no matter how small, before she can navigate so much as a distance of 50 feet from a shallow landing place to a mother craft anchored in deeper water. So much for the equipment requirements.

The requirements governing the actual navigation of outboards are set forth in the Act of Congress of June 7, 1897. This act requires that all outboards must carry, when operated on navigable waters, two copies of the Pilot Rules. These are published in the form of small booklets and the operators of outboards are supposed to conduct the navigation of their craft in strict accordance with the "rules of the road" contained in them. But the government goes no further in its attempt to control the actual navigation of outboards than to require the carrying of the two copies of the rule books.

The final requirement which the outboard owners must keep in mind has to do with the carrying of passengers for hire. The law says that no operator of an outboard shall carry a passenger for hire on navigable waters without first having procured a federal license permitting him to do so. Regardless of the sum involved or the distance traveled, the use of outboards for the transportation of passengers who pay for the convenience is forbidden except under the charge of an operator who is the possessor of the required license.

It should be noted particularly that the still enforced regulations which govern the registration and numbering of outboards were passed in 1918; that the equipment regulations have remained unchanged since 1910 and that the Pilot Rules requirements became law in 1897 when outboards did not exist, even in imagination. The life of the outboard itself, however, goes back only slightly more than 15 years so that, with the exception of the registration requirements (which, by the way, are the least annoying of the present regulations), the outboards of today are regulated by laws created before the outboards themselves came into existence.

Ten, eight or even five years ago, outboard owners

could entertain little hope of bringing about such changes in the laws as experience has proved necessary if the operators of such boats are to get a decent measure of the comforts and pleasures stored up in the outboard. There were no associations or organizations composed exclusively of outboard owners, and the special legislative problems of the outboard were considered too trivial to warrant the concern of the rest of the boating fraternity.

Today, however, conditions are vastly changed. There are more outboards in operation than any other types of pleasure motor craft. An increasingly large percentage of the members of yacht clubs and general boating associations are owners of outboards, perhaps along with larger "mother" craft. And there are, in addition, numerous sectional and national associations whose membership ranks are composed exclusively of outboard owners.

It is evident that outboard enthusiasts are united in agreeing that the present laws do not offer the outboards the degree of differentiation that their special needs and problems demand. In criticism of existent regulations they stand declared as a group; but ask a group of outboard men for advice and you will be confronted with opinions which are as diversified as they are numerous. As a group, they have yet to learn that they do not know just what they want. Before outboard owners can hope to merit the attention of Congress they must come to some satisfactory agreement as to desirable changes in the present regulations. They must offer for the consideration of Congress a code of regulations which can be demonstrated to be superior to the existing regulations and shown to meet more equitably the special problems of the outboards without, in any degree, detracting from those safety-of-life-and-property principles which form the core of all the motor boat laws.

The only method of arriving at an agreement as to what a new set of motor boat laws should guarantee to the outboards is by the dissemination of information and the exchange of opinions on the part of outboard owners. Many, by reason of executive positions or by virtue of unusual experience with outboards, can offer expert opinions as to the workability of the present regulations and debate upon those changes which appear necessary or desirable. But, in this matter, the opinion of every outboard operator, arrived at after deliberate consideration, is indispensable to the formation of a representative opinion. This exchange of ideas is the immediate duty of the outboard fans if they are to get the attention of the legislative authorities which their problems require. This duty of replacing the present accumulation of hazy ideas with clearly enunciated, constructive requests can no longer be ignored.

As a result of personal experiences acquired through inspecting for the federal government the equipment of some thousands of motor boats, the writer has come to hold certain beliefs as to what the regulations of the future should offer the outboards as a special group. His opinions are liable to the usual errors attributable to personal preference or unconscious bias; but offered, as they are, as definite ideas, based upon first-hand knowledge and long study, they may merit attention.

The present registration and numbering law excepts outboards not exceeding 16 feet from its requirements. So few outboards exceed 16 feet, however, that it would appear advisable to liberate all outboard-driven craft from the necessity of being registered or carrying an identifying number. Outboards, at best, are such Jekyll and Hyde creations that there seems to be nothing worthwhile attained by compelling the larger outboards to carry a number. It requires but a second to remove the motor and thus change the status of the craft from that of a motor boat to a skiff. This recommendation is the first we would make in any platform of desired regulations.

Only the operator of an outboard can appreciate the inconvenience and, in many cases, the actual hardship involved by the necessity of carrying the required equipment. It makes no difference whether the outboard is 10, 15 or 25 feet in length, whether the distance traveled is but from a shallow landing place to a mother craft in midstream, or from Boston to New York. All such craft operated upon navigable waters must be provided with all the equipment of a regulation motor boat. No one thing, we may be sure, so limits the usefulness of outboard craft as tenders to larger vessels, as conveniences in fishing, or in duck hunting or for general shallow water cruising, than the restrictions imposed by the equipment regulations.

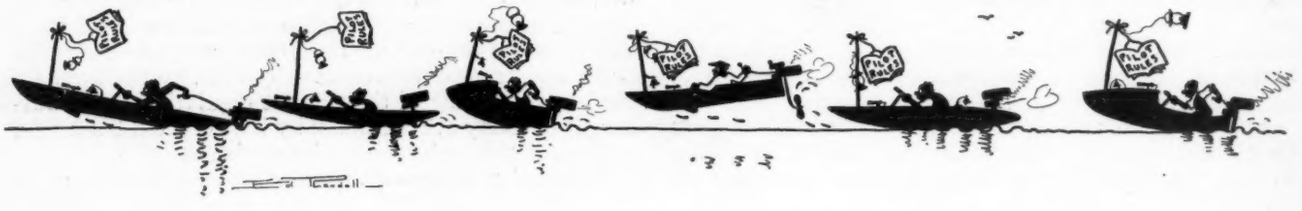
Sound-producing device, approved fire-extinguishing means, individual life-saving devices and running lights (when the craft is operated between sunset and sunrise) — all these items must be carried on outboards operated on navigable waters. Furthermore, these must be carried so as to be available instantly. They cannot, therefore, be carried in some cubby hole in the hull and so kept out of the way when the craft is in operation. When all these safeguards have been given their rightful place, the operator is confronted with the problem of finding space for his passengers and himself.

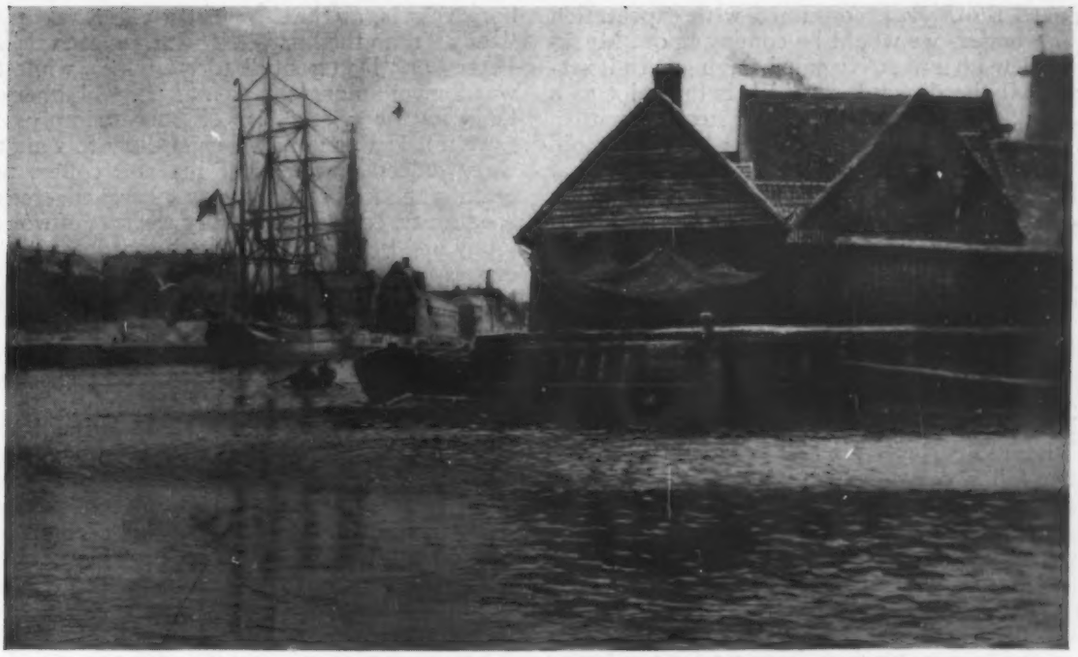
Constant exposure to the elements and the temptation to others to help themselves to such an open display of equipment serve to keep the outboard owner busy replenishing and watching over his equipment. Most outboard craft are not provided with lockers so that the average owner begins his spin with the carting of the required equipment from his home or some storage place on land out to the craft. And he ends his recreation period with what must be an enjoyable repetition of the same task. If he uses his outboard merely as a tender to a larger craft, he must pile on the equipment every time he uses the outboard, for he dare not leave it in the open boat. If you would understand clearly just what this equipment storage problem means to the outboard owner, ask the man who owns one.

The writer believes that outboards should be excused from the obligation of carrying a sound-producing device. It is seldom that the operator does more than carry such a device. The whistles are seldom used and they are eternally slipping overboard to an untimely fate.

On the other hand, the writer believes that no change should be made in the present rule which re-

(*Continued on page 124*)





A Danish bark unloading lumber in Copenhagen. And no steamers to mar the view!

What I Told My Boys in the Twilight

By JØRGEN FENGER

From the Danish by Frederic A. Fenger

HOW ever it entered my mind to become a sailor is incomprehensible to this very day, for my parents as well as my grandparents were land-people, and none of their kin had anything to do with the sea. Though Father had an uncle, in fact, who was in the service of the East India Company, long before I came into the world. Yet I do not recall having heard any mention of him till I, myself, was an older man.

So it must have been an inbred instinct that drove me to choose seafaring as a livelihood, for I was but a very small tyke of four or five, and had never seen any water larger than my father's marlpits, when this decision became an absolute certainty. Father's estate lay in mid-Sjaelland where in time we were twelve children of which there were seven brothers who went through all the different stages of boy-hanker in regard to choice of professions, from baker, grocer, ropemaker and artisan, to that of officer, King's physician and the Lord knew what their fancies might dictate and that for the moment happened to take the strongest hold upon the imagination. Only so far as I was concerned, there was no doubt. I would be a sailor and nothing else. Perhaps it was this yearning that kindled the flame which later steadily lured and drew me toward the sea. For when I was three or four years old, we had a chambermaid, Karen, who was my friend. Karen had a brother, and he was a seaman and had brought her the most marvelous things from the China Coast. A sewing box inlaid with birds, trees and people of ivory and colored mother-of-pearl, embroidered silks, and so on, and what was more, this marvelous brother of hers earned just as much in a month as one of our hands in half a year! At any rate, the sea-hanker was there, and it remained steadfast while we lived on Sjaelland.

When I was eleven my parents moved to Als, and here it was not long before I deemed myself "able." In my own mind, at least. Imagine what a delight it was for me to sail in something other than a kneading trough or a salt barge. Yes, in a real boat, and to be allowed to clamber aloft among the cutters and small craft down by the wharves! You may be sure that it was hard to find time for my lessons. The outcome of it all was that at last I persuaded Father to allow me to go to sea. So, soon after I had turned fourteen, Father found a berth for me as cabin boy in a ship which, on a voyage from Chili to Trieste, had come in at Falmouth for repairs.

In Sonderborg, her home port, I was to meet a young carpenter who also had never been to sea, and thence we two ninepins started out early one April morning in 1863, for London and Falmouth, *via* Flensborg and Hamburg. At Flensborg, where there was a wait of some hours, I looked up two of my brothers who were in the Latin school, and after they had emptied their pockets of their choicest possessions — such as a clasp-knife and a sketchbook with Princess Alexandra's picture on the cover — into mine, the journey was continued. It went hard, though, to say good-bye to these good brothers who were about my own age and were now to be my last home tie. Nevertheless, we fared on, my friend the carpenter and I, there were so many new things for us to see, and the next morning we were steaming down the

[These reminiscences, a translation from the Danish, recount the rigorous training and the adventures that were incident to a sailor's life in the last century, when a seaman had to be a sailor. *Ed.*]

Elbe on board the *Boreas*, consumed with expectation over all the wonders we would be coming upon. Meanwhile, there blew up a westerly gale bringing with it seasickness and all the discomfort which is one's lot as a second-class passenger on an English steamer with a deck load of cattle and having no place where one could stay but in the dark qualmish cabin. Uha! But that drew upon my small courage, though it was only a transition, and at last we stood up the Thames, to London. And here was something for our young eyes!

In London we were addressed to a firm of ship-brokers who would forward us on to Falmouth. On account of the storm we had been delayed nearly a day, and when we landed early in the morning at St. Catharine's Dock, the Falmouth steamer was just about to clear her gangplank. We could easily have made it. But when I learned that there was another boat by the same route three days later, I parlayed so long with my friend that we agreed to follow our orders to the letter and look up the brokers. By that time the Falmouth boat would have gone and we could have three days for wandering about in London. Even now I am rather proud of having had so much sense at the time. I was paying my own way, so there was nothing underhanded in that we followed our drift in seeing the large city. Through the kindness of the brokers we were lodged with some very friendly people named Heilbuth, and during those three days we wandered about from morning till night, a real nuisance to the policemen. In the forenoons we would set forth undaunted, on our adventures, without troubling ourselves as to where we might fetch and when, towards evening, we had to bend our steps homeward, we sought out a bobby and asked the way. He would see us as far as his beat allowed and then turn us over to the next officer, and so on till at last we reached our lodgings. Yet in that manner we saw something of the town, and I can still remember how leg tired we were at night. Howsomever, we must go on by the next boat, the *Albatross*, and one lovely forenoon, early in May, we arrived on board the good ship *Poseidon* which for a long time was to be our home. In fact, my friend the carpenter's last, for we buried him from her two and a half years later, off Ascension.

So we came aboard and were very well received, for my part, I may say, with genuine feeling by one person, as I was relieving him as cabin boy. On the other hand, the second mate was not so pleased at having a new boy to break in, and when I stole out to pay a little visit forward, that evening, I was confronted by an old Norwegian sailor, Schmidt, with the following welcome, "What the devil will a little fellow like you go to sea for? Can you and your sort no longer grant poor people's children their miserable bite of bread? And mind that girlish complexion of yours, when it meets up with salt spray and sun and wind!" That somewhat dampened my Marryatish ideas, but later on, when Schmidt came to know me, and I that he was not so bad after all, he taught me many a knot, the "gangway," Rose-and-Crown, and others, and how a royal yard is lowered to the deck. In short, he was of the old school, once he was well offshore, and he knew his stuff. For the time being, however, it was from the former cabin boy, Adolph, that I was to learn. He remained in the cabin several days longer, in order to instruct me in my duties.

All told, we were eighteen people, boys included. The captain was a little man in his mid-thirties, a Slesviger by birth, every inch a sailor, and quite good natured. He was usually spoken of as "the Old Man," or "de Ohle" (der Alte), as Low German was ordinarily spoken on board — most likely because in some of the Sonderborg vessels, at that time, it was looked upon as more "tony" than the Danish. The first mate was called "Big Peter" or "De Groote" (der Grosse), while the second was known among the men as the "blubber-cutter," as he was the victualler, or more simply, "Tweete" (zweite). It was now my chief duty to wait upon these three officers, make their tea and coffee, pudding on Sunday, and lobscouse, meat cakes, kedgeree or the like, for supper. It was not exactly the sort of work for which a boy had the most yearning, but at least it was the first step up the sea ladder, and I was fourteen months in surmounting it, my predecessor, Adolph, having taken eighteen months.

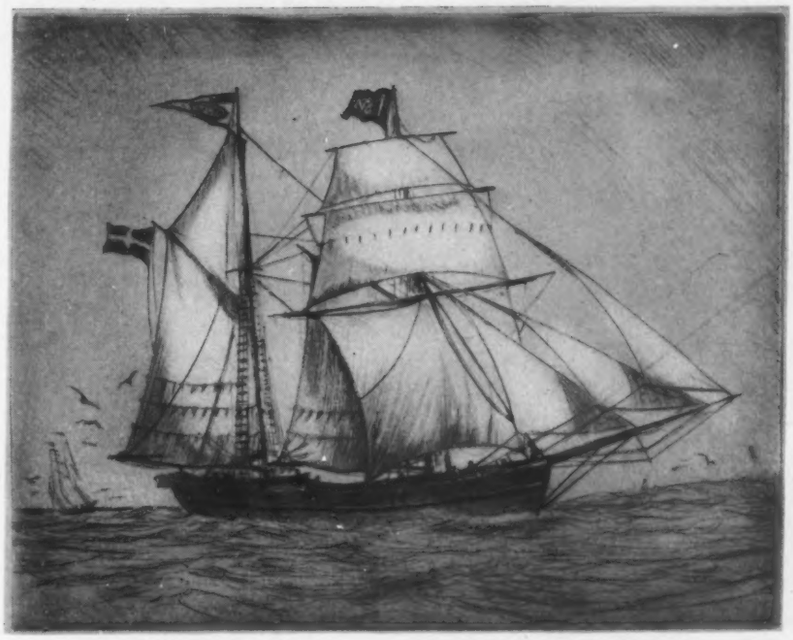
When the work in the cabin was finished, I was allowed to come on deck and learn a little sailorizing, but one had to go about it theftily, mainly, in the beginning. Adolph was a good-hearted, right thorough Copenhagen boy who had been brought up in an orphanage. Aside from the combined chambermaid's and housekeeper's work of a cabin boy, he could also wash and sew very decently. The last two invaluable accomplishments he had learned at the orphanage; pray every boy who must go forth on his own might learn the same. Adolph, then, not only instructed me in the above mentioned arts, but also to filch, whatever could be had, of choice snacks, or a bottle of rum and the like, for the men forward. At that time the morale was no different than it is now, as I learned from a little lecture which Big Peter read me on one of my first days aboard, in which he said, "I know that you will swipe food for the men forward. All boys do. But God help and comfort you, if you are found out." I kept his admonition so much in mind that he never chanced to catch me red-handed, although I managed to fetch many a good bite and many a dram to the men in my time.

My wage was four *rix-dollars* a month, and I thought that was a good deal of money. Father had written and asked the captain to fit me out liberally in all the usual seaman's clothes, at father's expense of course, and this was done with the friendly assistance of the captain's wife who was with us while the ship lay at Falmouth. And I shall never forget the coarse woolen shirts and under-drawers of the same material which I was directly ordered to put on. Lord, but it irked to wear that woolen stuff next to the bare skin. I had never known anything other than linen, yet it was, as with so much else, just a transition.

It was somewhat along in May when we stood out from Falmouth, and although it was undoubtedly fine weather, there was sea enough so that my friend, the carpenter, and I became seasick. But don't think for a minute that we were allowed to turn in on that account. Not a bit of it. We were up at four in the morning and there was no "watch below" for us till eight o'clock at night. That was no fun, to busy oneself over food, to wash up, clean the cabin and staterooms, put the lights and binnacle lamp in order and so on, when one was as sick as a kitten. But the work must be done, and it was probably just as well, though a bit strenuous, for after the course of some days the seasickness wore off a bit.

In the Straits of Gibraltar I was sent aloft for the first time, with orders to go by the chains (of the futtock shrouds) over the futtock plate and not through the "soldier-hole" (lubber's hole) in by the mast, which I managed fairly well. Along in the Mediterranean we met with calm weather and for several days we lay with the sea as smooth as a mirror. All about us were turtles, and the jolly boat being lowered, Big Peter sculled up to the sleeping animals, flipped them over and fetched them inboard with a hearty tug. They were just the

smaller turpen of thirty or forty pounds which the mate dared tackle, but of these he caught quite a few, a score as I remember. They were laid on their backs under the forecastle head, where there was shade, with wet swabs under their heads, and were slaughtered as we had use for them. Our cook, who was a negro — they called him Sam Slick — tried to make soup of them, and although he prepared it with syrup and vinegar, prunes and "clutter" (meal-balls), which was his universal receipt for festive occasions, it was not especially relished, as it tasted of train-oil. But after the fat had been carefully removed, the meat was rather good; boiled and grilled, it tasted almost like veal; some thought like fowl. Then by chance I ventured that I knew well enough how they made mock-turtle soup at home, and I was allowed to try my hand at it — which turned out very well. This dish was much taken to in the cabin; forward they got nothing out of *that* pot. But after we had made it several times, the Old Man began to suspect that Sam and I were rather lavish with the Madeira — and that was the end of that!



The *Laura*, Captain Fenger's first command after he had obtained his master's papers. Etched by Frank Vining Smith from a contemporary painting.

When the breeze came at last, it freshened one day so that the uppermost square sails, the royals, had to be taken in. The mate called me and took me up with him to the mizzen royal, where he most thoroughly showed me how the sail must be made up. While we lay out there on the yard, my lovely English sailor hat blew off — I can see it now, crown down, sailing away to the blue choppy sea — and I thought, "I wonder if you're not going after it yourself, for it is awful how the ship lays over." But I didn't go after it. No; one learned to clamp on, both with arms and legs. When we lay on deck again after my first sail-handling, the mate said, "From now on the mizzen royal is your sail to loose or take in, when it must be set or handed; and never let me see that any of the other boys get ahead of you when that order is given." And when I quietly answered that I would see to *that*, provided I could secure it well enough, the mate cheered me with, "That you will, for we have something which is called "over again." On board here we call it "the Danish exercise," and, besides, you must understand that when I have shown you a thing once, that will be enough." Well, luckily there were other boys in the ship aside from me, and they proved to have greater patience in teaching each other than the mate. Adolph was especially clever in this way, for he had been the youngest aboard so long that he well knew something of the heartfelt need to come forth with his knowledge. That was a great help to me, and drove home the truth of what Ben, one of our English sailors, said, "It is an ill wind that blows nobody good."

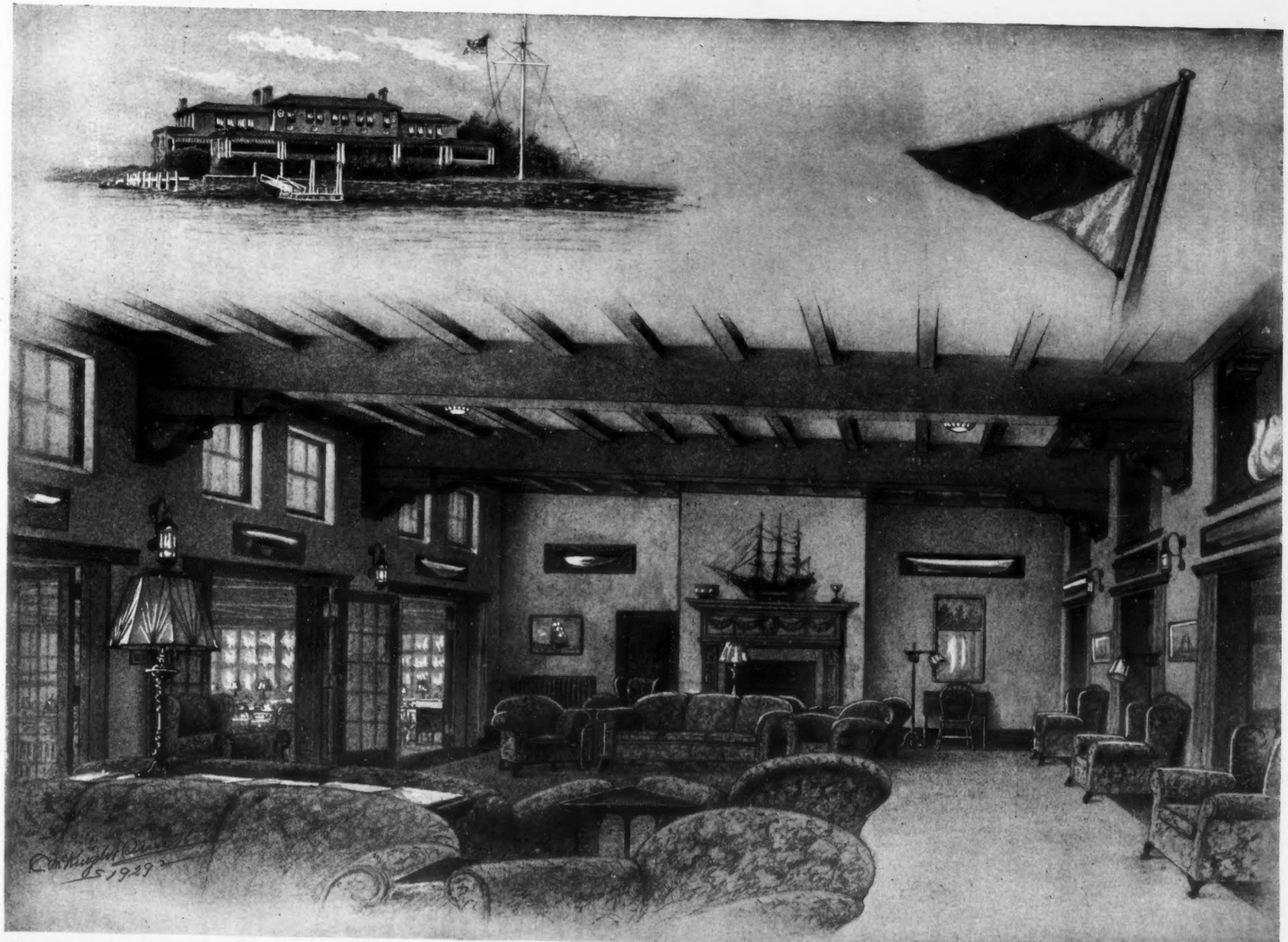
There were all the yards and spars, with their fittings, blocks, ropes and sails! What names! It was an entirely different language than that which we spoke ashore at home. A rope was called an "end," and the end of the rope was a "tamp." It seemed outright to be a point of honor never to call things on a ship by the same names used by the land-people. Such a ship is a little world in itself. When now I reckon it, I can figure up to six or seven hundred different designations alone, that belonged to the rigging and sails.* As, in this case, our vessel was a full-rigged ship, that is to say she was frigate-rigged, and had quite an assortment of spars with largely the same terms applied to each of the three masts, there were certain reiterations, such as "fore," "main," or "mizzen," to designate to which topmast it belonged. After the same manner there would be a "starboard" or "larboard" to indicate which side was meant, so it did not do to make for the foretops'l reef-tackle on the starboard side when the order was, "Larboard — fore royal — reef-tackle — haul!" One must know by instinct where all these objects and ropes were to be found, so that one could run right up to and lay hands on them, by day or night, without groping. No, the outlook seemed to be quite hopeless when for the first time Adolph poured out all his knowledge of this domain. Thought I, "You will never learn it," for I did not take into account that Adolph had been eighteen months longer on board than I, while of this he naturally said nothing at the time but made out as though it was all a mere nothing, rather instinctive.

The wind being almost continually ahead, we had to beat our way, and so frequently we brought the Italian coast in sight — as nearly as I can remember, we ran through the Straits of Messina. With wonder I saw Vesuvius, Etna and Stromboli, and then there was the marvelously beautiful Mediterranean over which the starry heaven arched so sparkling and clear. All this I had heard and read about, and now actually to see it! After all, it was lovely to sail on the sea. We made a long voyage of it to Trieste, six or seven weeks I believe, and what an unspeakably delightful feeling it was when the anchor was let go on a lovely summer evening in the beautiful bay which forms the harbor.

You may be sure that the sails were made up in a jiffy. By now the mizzen royal was no longer a bug-bear,

(*Continued on page 108*)

*This seemingly generous estimate no doubt includes many generic terms from the Scandinavian, English, Low German, Dutch and French languages with which these north country seamen were all more or less familiar — and explains, in a measure, the translator's difficulty in verifying definitions exactly, even by the aid of numerous dictionaries.

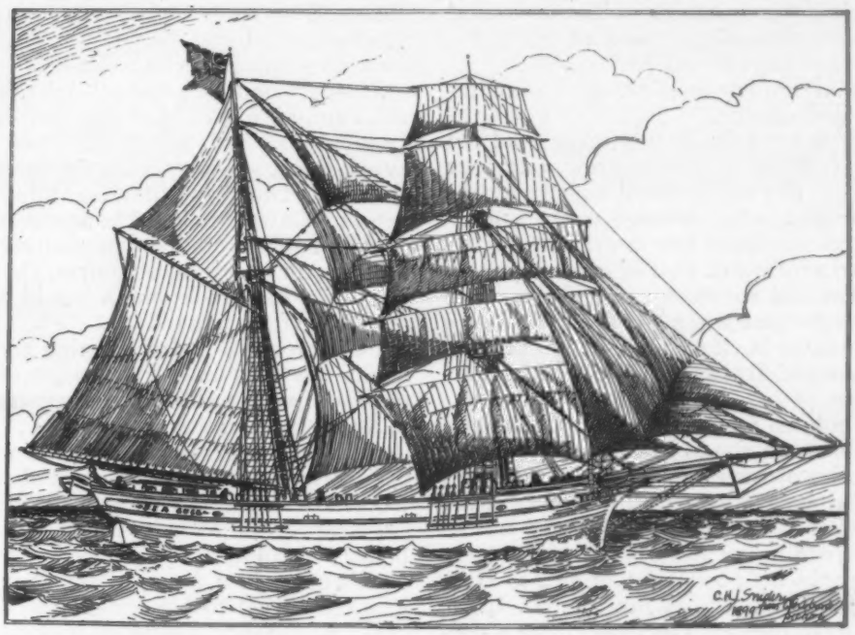


The handsome home of the Indian Harbor Yacht Club, at Greenwich, Conn. Organized in 1889, this club has long played a leading part in developing yacht racing on Long Island Sound, and has sponsored several popular racing classes. Robert Law is the present commodore and Clifford D. Mallory is vice commodore. The new clubhouse was built a few years ago. The drawing shows the main lounge, and the clubhouse and float as seen from the harbor.

Centerboarding From South Africa

By C. H. J. Snider

SIXTY-FOUR years ago this summer the hundred-foot brigantine *Sea Gull*, of Toronto, sailed from her hailing port on Lake Ontario for Natal, in South Africa, with a mixed cargo of Canadian-built buggies, lumber, drygoods and hardware, and a crew of nine lake sailors and one saltwater navigator. Thirteen months later she was home again, little the worse for wear, and $2,000 to the good—net—as the result of her venturing. A voyage of 18,000 miles under sail is worthy of consideration at any time. What makes the *Sea Gull's* of particular interest is the fact that she was a centerboarder, a typical shoal-draft lake schooner of her time. Her rig was modified to square canvas forward for the voyage, but her hull was just as John and Melancthon Simpson, extensive lake builders, had launched it into the Sixteen Mile Creek at Oakville, Ont., in 1864.



From a drawing of the *Sea Gull* by Charles I. Gibbons. Although double topsails were in vogue on the lakes before the *Sea Gull* was launched, lake vessels were still being rigged with single topsails in 1864, and sketches by the *Sea Gull's* passenger, Mr. George Hare, show that her foretopsail was a single one, with two lines of reef points.

We had sailing vessels in hundreds on the Great Lakes then, running up to seven hundred tons burden. The *Sea Gull*, of 201 tons register, could carry 400 tons of coal. Most of them were fore-and-afters, but some were topsail schooners, brigs, brigantines, barkentines or barks. I have never known a full-rigged ship in the lake trade, although we built one, the *City of Toronto*, at her name port, for ocean service.

Our lake vessels were well built in every sense—plenty of good stuff in them and good workmanship. Proof of that is to be found in their long lives. Many stayed in service fifty years after launching; some outlasted man's allotted span of three score years and ten. They would hold together when they went to sea. But in rig and model they were not so happy. They were lofty, for lake airs are light in the summer, and it was in the summer that they did most of their sailing. Winter freezes the lake ports solid. Our schooners ran to long topmasts and long jibbooms, with foremast and mainmast wide apart. The long nosepole with its range of three, four, or even five jibs, was a necessity, to keep them out of the wind. They griped hard, with started sheets. The reason for this was their model, and the reason for that was the canals.

Our vessels had to pack big cargoes over Niagara Falls or down the St. Lawrence rapids, and the closer they came to fitting the canal locks which enabled them to do this the better dividend payers they were. I have never yet seen a canal lock designed for either speed or comfort at sea, and our lakers had the family failing in that regard. We could not give them much deadrise, or a raking keel, or any overhang to speak of, without wasting lock space. So we made them as deep forward as they were aft, slab-sided and hard-bilged and almost flat-bottomed, and the wonder is they sailed at all. It was that long horizontal keel which made it necessary to carry lots of sail forward. We had to keep them rather shoal, on account of the depth of water in the canals and rivers and lake harbors. To enable them to get to windward—and also to make them come around in the same watch after putting the wheel hard down—we gave them centerboards—always one, sometimes two, in the case of three-masters.

The first boards were of the barn door type; squares of oak, built up of half a dozen planks or more, edge fastened with long bolts, each bolt driven through at least three of the planks. The device was in use as early as 1812, when Joshua Kendricks had a "slip-keel schooner" of small dimensions. It was not employed generally until the 1850's. The "barn door centerboard" was, like its successor, housed in a box or trunk built up in the hold, from the keelson to the deck beams. It worked through a slot in the vessel's bottom, cut on one side of the keel; consequently, it was of more use on one tack than on another. An extra keelson was built over the ends of the severed floors and frames which could not touch the main keel and keelson. The board was raised or lowered from two deck winches, which worked pendants at either end.

Later, in the early 60's, an improvement was made by cutting the slot through the keel, leaving the frames mortised into it on each side, and strengthened by sister keelsons, one on each side of the centerboard box. The centerboard itself was improved by making it swing on a kingbolt, which passed through the centerboard box and centerboard at the forward lower corner. From the upper after corner of the board a chain pendant led through the centerboard box to a winch placed above it on deck.

The *Sea Gull* had some of the merits and defects of her time and type. She was not extreme. She was shapely

above water, with a cutwater stem making a "clipper bow" in a graceful quarter circle, and a pleasingly rounded transom stern and short counter. She was rather straight in the sides, hard in the bilges and broad in the bottom. She was framed and ceiled and planked with the good white oak which grew in virgin forests within a mile of her launching place, and gave its name to the town — Oakville. So well built was she that she once charged a canal lock gate, burst it open, and was hurled back, with the inrush of water from the lock above, until the lock gates astern of her drove in her taffrail and transom and her whole stern was one great v-shaped gash. She made a $30,000 wreck of the canal. But she never leaked a drop! And that sort of building was done for $35 a cargo ton in those brave days of old.

Yet — what would damn her in the eyes of some today — she was a centerboarder.

She was 105 feet long on deck, 22 feet beam, and ten feet deep in the hold. When light she drew only four feet six inches of water. Her centerboard added eight or nine feet more to her draft when lowered to the full extent of its chain, and increased her lateral area sufficiently to take her to windward. Full of cargo, her hull drew ten feet at stem and sternpost; but she was not loaded much over eight feet when she went to South Africa, nor when she came back with a cargo of pepper, ivory, sugar, molasses and arrowroot and 37 passengers for Boston.

I have not been able to find the *Sea Gull's* logbook for 1865–66, but bits about the long voyage have been preserved in the stories of those who made it. How did her centerboard and her shoal-draft model behave? Here is the tribute of Mr. George Hare, one of the passengers who returned in her from Natal to Boston:

"Being a passenger in the good Brigantine *Sea Gull*, on a voyage from Port Natal, S. A., to Boston, U. S., we left on the evening of the 21st Dec., 1865, and after a stormy fortnight got to within sight of Table Mountain, having been hove to, as the sailor says, twice, and scudding another day with a small corner of our topsail set before another Gale, as we rolled and labored so fearfully in the tremendous sea that it was getting rather dangerous to our vessel, which was what is called a centerboard one, that is, to the uninitiated, a vessel with a moveable keel, and besides being very broad she labored, and in fact was by no means a comfortable vessel to be in a heavy storm."

This glowing tribute is followed up by some vigorous pen-and-wash illustrations in a notebook Mr. Hare kept. He was of seafaring stock, a son of that Lieut. Charles Hare, R.N., who commanded His Majesty's schooner *Bream* and His Majesty's brig *Manly* in the Bay of Fundy in the War of 1812, and fought a sea duel with the Salem privateer *Wasp* with such credit on both sides that Capt. Ernest A. Ervin, the privateer commander, subsequently published a card of thanks in the New Brunswick papers. With a sailor's eye for detail Mr. Hare pictures the *Sea Gull* leaping like a porpoise when hove to off the Cape of Good Hope, under the head of the mainsail, or scudding under the starboard goosewing of the close-reefed fore topsail, amid huge curling seas, that seem to take her just forward of the main rigging. Still, his sketches always show her "on top," and she came through much very hard weather without damage.

Her passages were not phenomenal, but they were nothing to be ashamed of. Her round trip voyage of thirteen months included more than three months' detention in Natal, unloading her outer cargo and waiting for a return freight. It was lengthened out, after she reached Boston on the way home, by having to discharge there and load flour for St. John's, in Newfoundland. Here she unloaded and went back to Sydney, Cape Breton, for a cargo of coal for Montreal. She came up the St. Lawrence canals light, and thriftily took on a cargo of cordwood for Toronto when she reached Kingston at the entrance to Lake Ontario. All was freight that came to the *Sea Gull's* hold, but cargo details accounted for almost half of the time of her voyage.

Three months from the Cape of Good Hope to Cape Cod is not bad going for a hundred-foot keel, although she was three weeks buffeting between Bermuda and Boston. The *Sea Gull* took a fortnight for the 755 miles between Natal and Table Mountain. This was due to the heavy gales in which she had to heave to, or scud and lose ground. She had a "balance reef" in her mainsail, running from above the double-reef earing to the throat of the sail, which gave her a snug triangle of canvas for a storm trysail, the main gaff being peaked up high between the lifts. Scudding before the gale instead of continuing hove to was an alternative probably only possible from her shoal-draft centerboard hull. On such an occasion, of course, the board was entirely housed in its box — which would have made a grand receptacle for wave-oil.

In the fortnight after turning the Cape the *Sea Gull* made the 1500-mile run to St. Helena, where she touched for water and fresh vegetables. The next 1,500 miles to the equator were slower, for her unprotected bottom was becoming foul with weeds and barnacles in the warmer water. It was on February 9, 1866, three weeks after she left St. Helena, that she hove to off the St. Paul Rocks, 55 miles north of the line, and sent her boat to shoulder its way through schools of sharks and clouds of boobies, for a close look at this desolate group. The crew tried to fish for groupers, outside the line of surf, but the sharks were so thick they had to poke them away with oars and pike poles before they could get their hooks to sink; and then the beasts snapped the bait.

Exactly a month later, on March 9th, the *Sea Gull* was off Bermuda in a gale of wind, under close-reefed foretopsail, double-reefed mainsail, and foretopmast staysail. Mr. Hare's lively picture shows her again leaping the wave backs with a great deal of weather side exposed, and her faithful "fly," or conical windfinder of bunting, streaming from the main truck. That little detail is convincing evidence of her Great Lakes origin. No laker ever went without such decoration.

Whether she put into Bermuda is not known, but by March 30th she was safely in Boston, having covered some 8,000 miles of bottom in 98 days. She had heavy weather coming on the coast. By the time she got in with Cape Cod it was snowing and blowing and the little brigantine was so iced up that she was unmanageable. Her centerboard was frozen in its box and her sails and gear so loaded with ice that it was impossible to furl or trim what canvas was up, or set anything in its place. Captain Jackman told his passengers there was little chance for their lives that night, for the *Sea Gull* would probably strike the beach before daylight. Mr. Hare wrote a farewell message to his family and tied it around his body, under his clothes, so that his corpse might be identified. But he had the pleasure of delivering it in person, for by God's mercy the *Gull* flew clear of the Cape and into safety in Boston Bay.

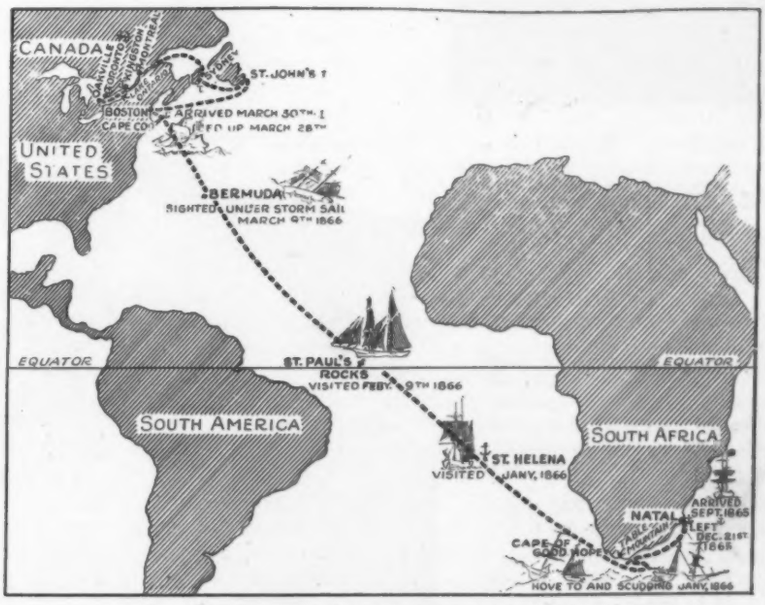
The worst that can be said of the *Sea Gull's* centerboard at sea is that it was a worry. "Reef the centerboard and haul the keel on deck" is a venerable joke among freshwater yachtsmen. But reefed that center-

"Under the beetling cliffs of St. Helena the *Sea Gull* 'scandalized' her mainsail by dropping the peak, clewed up her foresail, backed her topsail, and came to anchor."

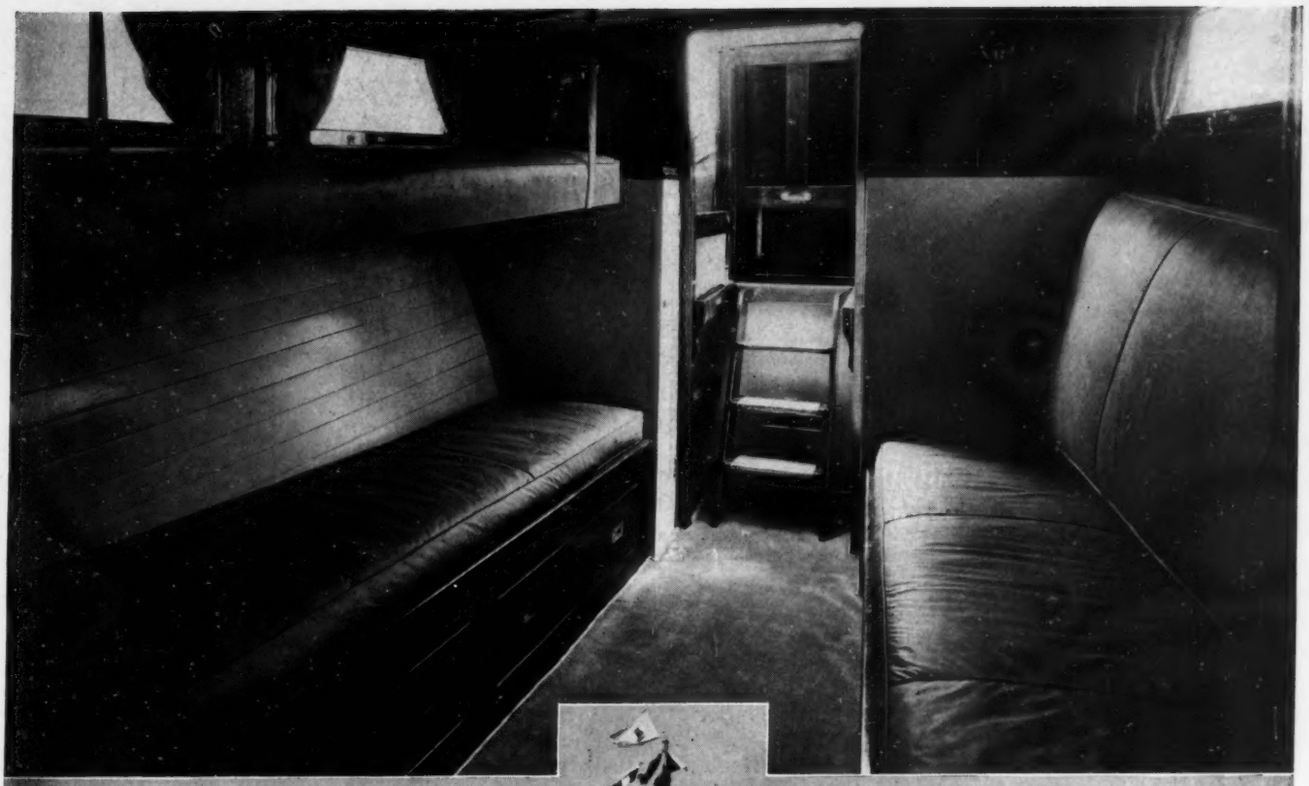
board had to be, that is, hauled part way up when the vessel rolled hard. Otherwise, it might buckle and jam, or burst the sides of the box, or break off completely, under the keel. I have known of boards doing so on the lakes, and floating up to windward, for to save labor at the winch they were never weighted much beyond the point of buoyancy. The *Gull's* crew were particularly anxious over their centerboard box. They were afraid of the straining in the fearful rolling, and they dreaded the sea worms. These pests do not exist in fresh water, but when she got into the tropics they proved a serious menace. By careening and scrubbing and scraping and painting they kept the ship's bottom clean, but there was no getting at the insides of the centerboard trunk. In the dead water in the slot the sea growths increased and multiplied until the passengers in the accommodations fixed up in the hold said they could not sleep at night for the noise of the worms gnawing the wood. Daily the centerboard was wound up and lowered, to give the sides of the box the benefit of its friction, and the cap was removed and sand and ashes poured in for the same purpose. The box was caulked from the outside, and it held together until the *Sea Gull* got home. When she returned to Lake Ontario she resumed her schooner rig and traded actively for many years, passing into American registry and winding up as a lumber barge. She was burned at East Tawas, Mich., in 1888.

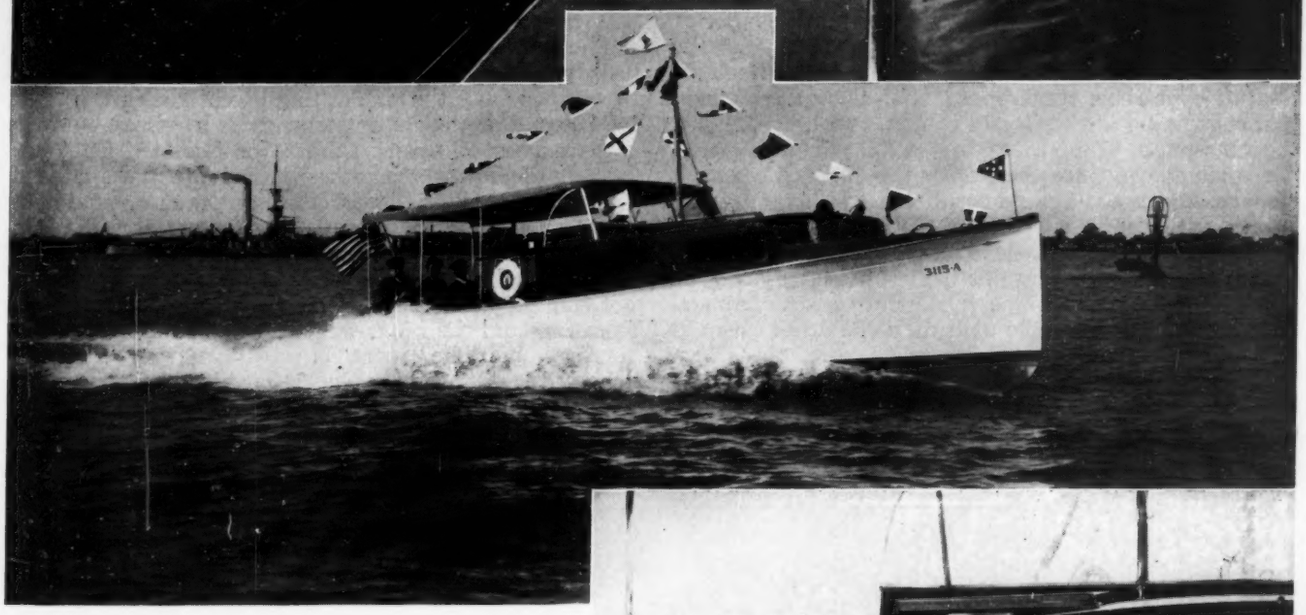
The *Sea Gull* was by no means the only lake centerboarder which went to sea, but as far as I have been able to learn she was the smallest and went the farthest. In 1874, for example, six centerboarders left Lake Ontario with cargoes of square timber for London, England. One of them was the *Edward Blake*, a three-masted schooner. Æmilius Jarvis, that outstanding and upstanding yachtsman, got his first saltwater sailing in her. She was 45 days making her eastward passage, being hove to for nine days at a stretch because they could not run her in the high seas with her flat bottom. But from England the *Blake* went to Brazil and back before coming home. The "moral" to be drawn from her experience and that of the *Sea Gull*, regarding deep sea centerboarding, may be somewhat unencouraging, but let us take it for what it is worth:

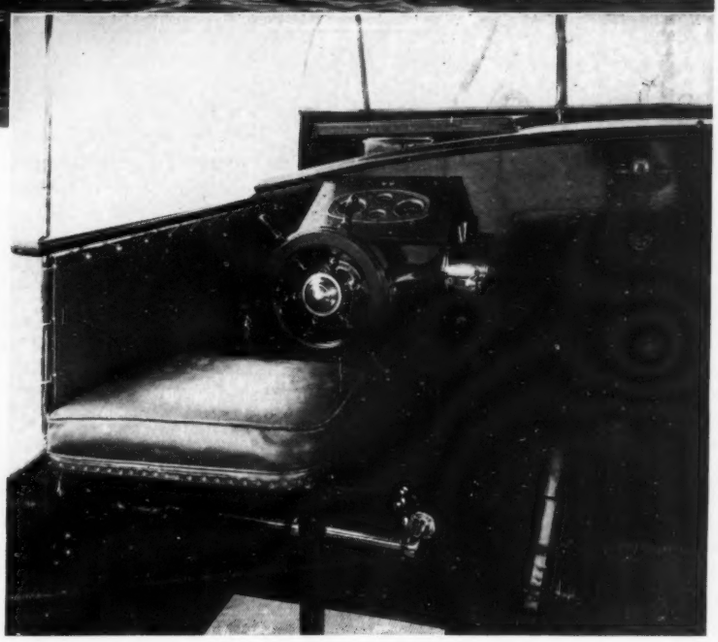
"It can be done."



The *Sea Gull's* homeward flight from South Africa, 1866.







The "Corsair Thirty-Six"

New in the field of stock cruisers is the Corsair "36," a companion model to the Corsair "30." Thirty-six feet over all, the new model has a beam of 9 feet 10 inches, and a draft of 2 feet 9 inches. Power is furnished by a 200 h.p. Model 202 Scripps, giving a speed of 22 to 24 m.p.h.

Accommodations have been well worked out, and include sleeping quarters for four, ample lockers, an enclosed galley, equipped with icebox, and unusual toilet and lavatory facilities. Steering control is in the after cockpit, which boasts of a streamline windshield and collapsible top, with remote control in the forward cockpit.

This new cruiser is from the board of Eldredge-McInnis, Inc., naval architects.

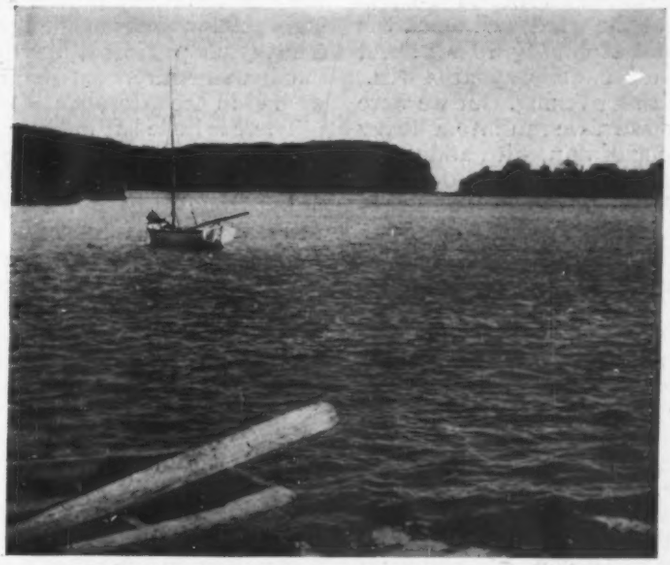
The Cruise of the *Alice*

Part IV — Homeward Bound from Martinique, Over a Course Along the North Coast of Porto Rico and Haiti, and to the Bahamas

By HENRY HOWARD

AFTER a full week at Fort de France, we reluctantly took down our awnings, removed our sail covers and started on our return voyage to the United States, stopping first at Dominica to bid goodbye to our many friends there, and then at the Les Saintes Islands. After passing Guadeloupe we changed our course to Antigua.

To return again to the question of hurricanes, we had ocular proof of the limited nature of the path which is covered by one of these storms. In Martinique, for the first time on our cruise, we were able to get fruits of all kinds since Martinique had not been touched by the real hurricane; it had a bad gale but nothing more. Dominica suffered considerable damage, but Guadeloupe was devastated. On the other hand, Antigua, 50 or 60 miles to the northward, was practically undamaged. This is impressive proof of the importance of following the directions given on many West Indies charts as to the proper course to steer when a hurricane is believed to be approaching. There is apparently always a reasonable warning, sometimes two or three days, and it would appear that 100 miles to one side or the other of the track of the approaching storm, is sufficient in many cases to remove one entirely from the danger zone.



At English Harbor, Antigua, in the Leeward Islands.

Antigua, a British island, is exceedingly attractive and would, I believe, make an excellent winter resort. There are beautiful hills, some of them quite high but there are no really high mountains, so that one does not suffer from the continual tropical rains which are found when the trade winds encounter the more mountainous islands. There is a delightful bathing beach. The island is about 15 miles in diameter and has many beautiful harbors along the coast line, the chief of which is St. John's Harbor, where the steamers land. Next to this, English Harbor, a much better anchorage, and the place chosen by Lord Nelson to refit his fleet when he was in the West Indies. While the scenery is not comparable in beauty and grandeur to that of Martinique, it is most charming, and the island is blest with many good roads. It is an excellent place for horseback riding and there is good fishing around the coast.

Antigua is the government seat of the Leeward Islands and we found Governor Fiennes and Lady Fiennes most hospitable. His Excellency urged us to visit the island of Barbuda at which Fenger also touched in the *Diablesse*.

Barbuda has no port of entry, and foreigners must obtain permission to land there from the government of the Leeward Islands. The Governor arranged for one of his staff, Mr. Pereira, to go with us and spare no pains to see that we should find both the fish and game for which the island of Barbuda is noted. A local pilot took us inside of a dangerous looking reef and we dropped anchor in a well protected, although slightly rough harbor. The village of Codrington, on Barbuda, is about four miles from the landing place, so we were obliged to leave the *Alice* in the custody of the crew. During the night it blew half a gale which made me anxious for the safety of the *Alice*, but everything turned out to be all right; the anchorage had not proved a rough one. Barbuda is a low-lying island with a long treacherous reef on the windward side on which rest the remains of some 50 or more wrecks, one of them a steamer that went ashore only about a year ago. It seems criminal that there should be no light to warn mariners from these dangers.

After two or three days we were again under way, this time headed for St. Bartholomew, or St. Barts, as it is generally called. We were underway at 5:30 P.M. and anchored the next morning at 7:30 A.M. in Gustavia Harbor. This is put down as a French Island and I had not realized that it was in reality a Swedish Island, that is, it formerly belonged to Sweden and most of the people there are of Swedish descent, at least among the whites. The anchorage is good and it is an interesting place to spend a day. Life is exceedingly primitive and seems far away from the rest of the world. We were under way again, headed for the Virgin Islands and Round Rock Passage which we had left nearly a month before.

We delayed starting from St. Barts until 4:45 P.M. so as not to approach Round Rock until after daylight, but the wind increased in strength and we found we were in for one of the very strong trade wind breezes. In one two-hour period we made 17 8/10 knots, our best run under sail alone. This, however, was putting us ahead of our schedule, so at 4:30 A.M. we hove to and waited for daylight. We found that the strong wind, combined with the current through Anegada Passage, had put us to leeward of our course and it was 8 A.M. before we actually passed through Round Rock Passage.

Landing at Royal Island Harbor, Bahamas.

This involved quite a thrash to windward in a very rough sea, with the engine to help us. From Round Rock it was a straight run to Road Harbor in Tortola Island with smooth water and the wind well abaft the beam. We were at anchor and ashore by 10 A.M. and after a delightful day we were under way at 4 P.M., hoping to get to St. Thomas that evening. But we were hardly outside Road Harbor when we ran into a heavy squall with a terrific downpour of rain, with additional squalls appearing to windward. As I had no desire to try to get into St. Thomas in thick weather and heavy wind after dark, we immediately changed our destination to Hurricane Hole in the island of St. John, which has already been described, and were safe at anchor there before dark. This was the first night's sleep we had had at anchor since leaving Barbuda.

The next morning we ran under the engine until clear of the mountains, then hoisted sail and found a splendid breeze outside. With engine stopped, we had a glorious run to St. Thomas. The morning and afternoon were spent ashore getting papers, Diesel engine oil and drinking water, and at 10 P.M. we were under way for San Juan, Porto Rico. The wind was very moderate all night, but we ran without the engine, and by daylight were through Virgin Passage and well past the northern end of Porto Rico.

As the day advanced, the trade wind increased and by the time we arrived at San Juan it was again a strong trade with the huge rollers for which this part of the ocean is noted. With the wind nearly dead astern, however, it was great fun, but it would have been quite a different story for any boat beating to windward. About noon we anchored in San Juan harbor.

On leaving St. Thomas we had debated at some length as to whether we should go along the south side of Porto Rico and then the south side of Santo Domingo and Haiti. This would have brought us way down by Jamaica and a long distance to leeward of Cape Maisi, Cuba. We decided that it would probably involve returning to Florida *via* the south coast of Cuba around Cape San Antonia to Havana, and then to Key West. This would make a visit to Nassau impossible for want of time so that we finally decided on a course along the north coast of Porto Rico and then from San Juan directly to Sosua, a small port ten miles east of Port Plata where an old Boston friend was living. This was about 270 miles west of San Juan, and we had a glorious run, all under sail, with the trade wind always a fair wind. We sailed out of San Juan harbor at 5 o'clock Sunday afternoon and anchored in Sosua about 11 A.M. Tuesday. This is an excellent anchorage, free from mosquitoes but with very limited supplies on shore. We spent the night there and the next morning sailed to Port Plata where we spent a very pleasant day, but were under way before dark. The next morning, shortly after daylight, we were heading in for Cape Haitien harbor, where we anchored early in the forenoon. This had been another glorious run with trade winds abaft the beam and no engine needed.

Cape Haitien is a most peculiar harbor. The protection is due to a series of reefs lying a short distance offshore which completely break the sea, yet when you see it from a distance of four or five miles, ocean steamers at anchor appear to be anchored in the open sea on the windward side of the island because no sign of the reef is visible, or, at least, was not visible in the smooth sea as we approached the harbor. In spite of this, the anchorage at the head of the harbor is as smooth as could be desired; there is absolutely no roll coming in and some exceedingly shallow spots inside the outlying reef prevent even a heavy chop. How it may be in a gale, I do not know, but it was entirely satisfactory in the fresh trade wind we had in the afternoon.

There is little left in Cape Haitien as a reminder of its glories in the days of the French occupation before the Revolution. Judging from the few ruins and the remains of old stone gates and walls surrounding the large estates, it must have been a delightful place. While we were there, the climate was perfect. It is on the windward side of the island with a fresh trade wind blowing in from the sea.

The sharks in this neighborhood are particularly bad and for the benefit of those who strongly believe that sharks never attack human beings, the American Consul, Mr. Currie F. Wood, has many facts and cases which have come to his personal attention.

Haiti is a fascinating country, with mountains up to 10,000 feet in height, very precipitous and of volcanic origin. There are excellent automobile roads and the trip of about 75 miles we took from Cape Haitien to Gonnaives on the other side of the western end of the island is beautiful. Cape Haitien is also the starting point for the most interesting trip in the whole West

Great Inagua Light. Note the clouds. This picture was taken looking east, at 7 a.m. Later in the day there were very heavy trade winds.

Our "lee shore." At the "glass window," on the northeastern coast of Eleuthera.

Indies, to the citadel or fortress built by Emperor Christophe on the top of a mountain, 3,000 feet high, about 12 or 15 miles back of Cape Haitien. This is also an excellent place to lay in supplies of all kinds; everything is exceedingly cheap, including the best French wines and champagnes.

Our next run was to Mathew Town, Great Inagua, where we stopped for two or three hours to see the flamingos which are there in great quantities. Our plan was to continue on from Inagua and land at San Salvador. The next morning at 4 A.M. we passed Castle Island Light at the entrance of Crooked Island Passage and had a delightful sail all day, with a light, fair wind in the smooth waters of the passage. This made us realize that we were getting out of the trade wind district; in fact, the breeze was continually growing lighter and lighter and beginning to change its direction.

About 4 P.M. we were abreast of Bird Rock Light from which point we laid our course for San Salvador. By this time, however, the wind was hauling to the southward which made us fear that a norther was approaching. The breeze continued exceedingly light all night, but we kept on, hoping to get to San Salvador in time for at least a short look around, but by the time we arrived at the anchorage on the westerly side of the island, it was already beginning to be a lee shore with the wind about southwest and steadily increasing in strength. So we simply sailed close in to the beach and with one good look ashore laid our course for Cat Island. By this time, the wind was so far to the westward that we could not weather the southerly end of Cat Island, but did get into the lee of the land about ten miles to the northward of the southerly end. Here the water was quite smooth and we made good time through the night. By noon the next day we were pretty well abreast the middle of Eleuthera Island and we thought we could get around its northern end and into New Providence Channel before dark and before the wind actually came out of the north.

At about 4 P.M., however, the norther struck in good earnest, with a terrific downpour of rain and a rapidly increasing wind from the northeast which made Eleuthera Island a lee shore. Just at this critical time I was obliged to stop the engine because I found that the circulating water pump had become air bound by air getting into the water intake owing to the very rough sea and this had caused the cylinder of the engine to overheat to such a degree that I did not dare to start the pump drawing again until the cylinder had had time to cool off. After a wait of perhaps half an hour, I started the engine again but after 15 or 20 minutes the relief valve blew on the cylinder jacket, indicating a stoppage in the piping due to scale which had been dislodged by the overheating of the cylinder. This meant a final shut down as the thorough cleaning out of this scale was more of a job than I cared to undertake under the conditions then existing.

This is the point where my friend, Mr. Wetherill, one of the editors of YACHTING, will have a laugh at my expense, as this is exactly what he predicted would happen, but I can also laugh at him a little because in spite of these conditions, with a gale of about 40 or 45 miles blowing on a lee shore, the *Alice*, with the aid of her centerboard, was able to work off with sail alone with the greatest ease, although I admit that I was pretty nervous until I was perfectly sure that she was making good progress to windward. Before the engine stopped we had shortened sail to a storm jib and a double-reefed mizzen, but with the engine permanently stopped we also hoisted the mainsail and rolled in three reefs. With this sail she handled beautifully and made good progress with the centerboard, of course, well down.

We were within one and a half miles of the shore when the wind changed to northeast and for a 20-minute period or thereabouts we were able still to use our engine so that we did get a slight offing before we were dependent upon sail alone. However, the storm continued pretty much through the entire night, and as soon as signs of dawn began to appear I bore away, headed southwest and was obliged to run 25 miles dead to leeward by the log before we again sighted Eleuthera Island. This is a good indication of the progress we made to windward through the night under sail alone. Moreover, as soon as I was satisfied that we were actually working to windward in good shape I gave instructions to the helmsman on each watch to sail her very bare of wind and just jog along slowly so as not to get too far offshore.

We finally passed Eleuthera into New Providence Channel, then by Egg Island Light to our old and well loved anchorage in Royal Island Harbor where we spent that afternoon and the whole of the next day, the writer cleaning scale loosened by the overheating of the cylinder out of the engine and piping, while the other

(*Continued on page 100*)

Carenage at Gustavia, St. Barts.

Tiercel, A Modern Fast Cruising Cutter

By E. G. MARTIN

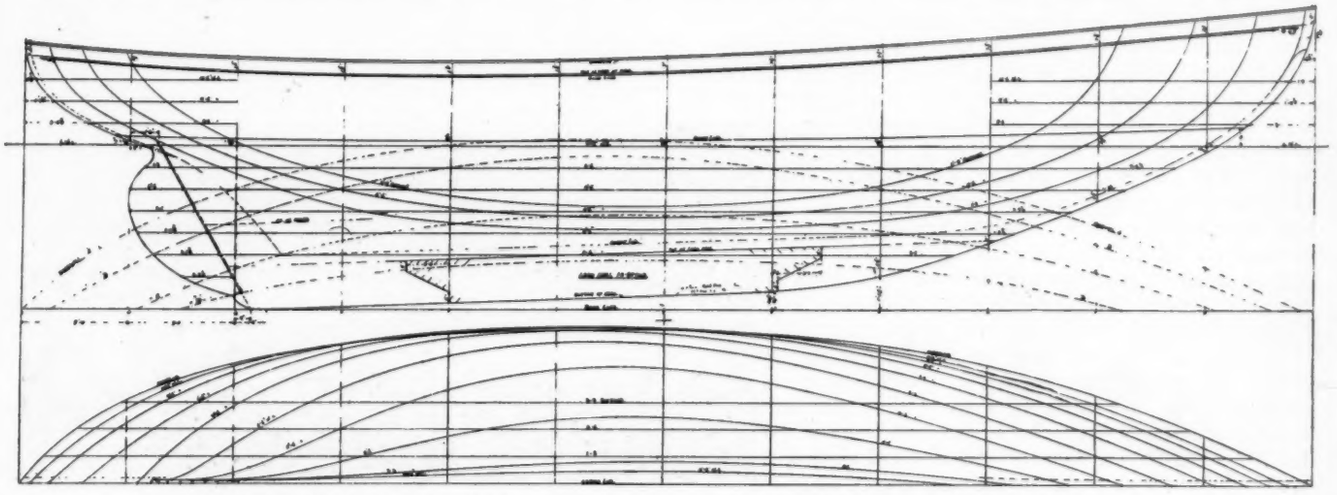
THE Editor has asked me to give some description of a Bermudian cutter built last year by Messrs. Miller, of St. Monans, Scotland, for Dr. T. H. Ward, of Totnes, in Devonshire. Dr. Ward and I have raced against each other, sailed together and discussed our boats together for many years, and so when he set out to build *Tiercel* he asked me to go into all the details with him and to keep an eye upon the ship while she was building. When I came upon the scene the design of the hull was already settled, the outcome of some two years of thought on the part of her owner. Having made up his mind upon essentials, he had the design drawn by Mr. MacBryde, of Glasgow, and the result has been a very fine ship.

Tiercel is interesting in many ways, and especially, perhaps, because her midship section is based upon that of the big Scottish herring drifters. She has the drifter body, to which a deep keel and moderately overhanging ends have been added. Generally, such modification of a very definite type does not lead to improvement in form, but in this case the designer has been most successful in his adaptation of a fishing-boat type of vessel for use as a yacht. Before the days of motors, these drifters, which were often from 70 to 80 feet long, were rigged with an enormous dipping lug and a standing lug mizzen, and they were notoriously fast. Now, they carry only auxiliary sails which are hardly ever used except that the mizzen is set as a steadying sail; but one can see speed in their lines, and *Tiercel* seems to have inherited it.

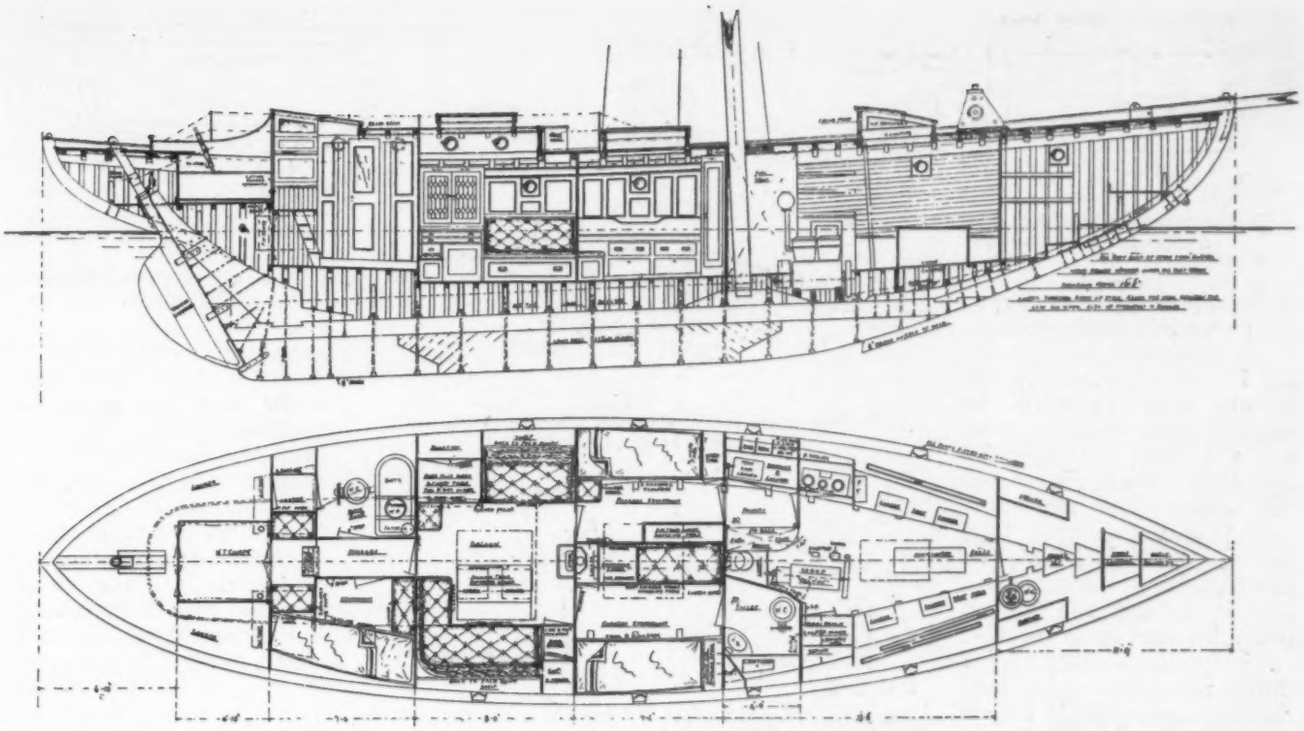
Tiercel was built in excess of Lloyd's requirements for wooden yachts of the highest class. There is nothing in her construction which calls for special comment except that the deck and the whole of the planking are of teak, and that everything about the ship is very well and strongly made of the best material. She has a lead keel of about 25,000 pounds, and is copper sheathed. In one way she was of especial interest to me; it was to find out how far, by her behavior, she would confirm my belief that in cruising yachts deep draft is not essential for speed to windward, handiness, or power. Later, when we had an opportunity of testing her severely, she seemed to support my theory, for she proved to be fast, able, and handy.

Tiercel **has a small sail area, about 1700 square feet of working canvas.**

When the maximum speed close-hauled *in smooth water* is the requirement, no doubt a big draft is invaluable; but when speed in *rough* water is needed, draft, I think, may be a positive disadvantage. A ship can be driven only hard enough to sail really fast over a head sea when she has a naturally easy motion. If she plunges and kicks, not only will she smother herself in water, but she puts terrific strains upon her whole fabric and gear. When a sea meets the bow, the bow rises and the stern sinks, and, as I understand it, the pivot upon which this movement takes place is her center of buoyancy. Below the center of buoyancy is the center of gravity, and it is the height of the one above the other which largely determines her lateral stability. If these points can be considered as fixed in relation to the hull, it follows that when the bow is raised the CG is thrust upwards and forwards, and when the bow drops again the CG drops back. Thus, every wave meeting the ship's



The lines of *Tiercel*. Her midship section is based upon that of the big Scottish herring drifters.



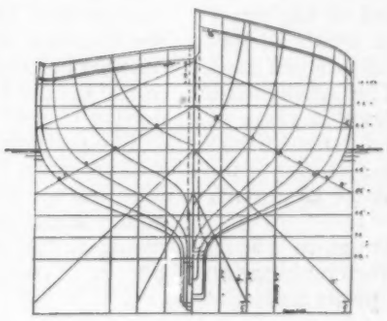
Tiercel, 60 feet over all, 50 feet water line, 14.6 feet beam and 7.6 draft. The author believes she embodies the desirable qualities for an ocean racer.

bow acts as shown in the accompanying diagram.

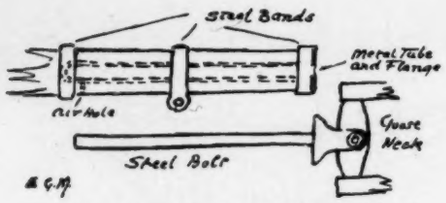
The bow travels from B1 to B2, and the CG (which one may imagine to be the whole weight of the ship concentrated in one spot) moves forward and upward from CG1 to CG2. It is a simple question of leverage, and it is plain that the longer the lever is from B to CB in proportion to that from CB1 to CG1, the more easily will the bow rise and the more gently will it return to its original position. Thus the effect of shortening the distance between CB and CG is to transform a series of jerks into one of undulations.

I believe that, as a factor in speed, an easy motion over a head sea is often not recognised at its full value. For one thing, it is impossible that sails should do their work efficiently when they are being violently jerked about; for another, the strains set up aloft, when a ship is plunging heavily, are terrific, as one soon finds out if one has to hang on to a masthead. Moreover, the less a ship plunges the more will she sail upon her normal water lines. The easy ship will pass through the water much faster. This in itself is a factor in weatherliness, as one may see when a boat is struck by a puff when she has no way upon her; she makes nothing but leeway until she starts moving ahead.

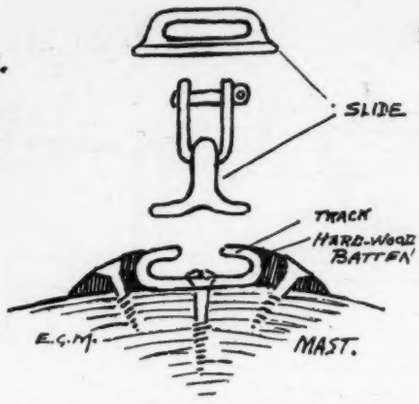
I always hesitate to launch out into theoretical discussions about centers and such things, but the point I want to make is that speed to windward in rough water may be obtained with a very moderate draft, provided that the motion of the hull is easy, and that the stability and lateral plane are ample. Draft, except in so far as it is necessary for stability, headroom, and enabling the ship to answer her helm well, seems to me to be nothing but a disadvantage. A vessel with a moderate draft has more waters open to her and more places where she can be laid ashore for a scrub. She will also behave more pleasantly when driven into a head sea. Were I building an ocean racer on a 50-foot water line, I would try a draft of not more than seven feet six inches or thereabouts, and I should be encouraged to do so by the behavior of *Tiercel*, and also of a 49-foot W.L. cutter called *Chance*, in which I sailed many thousands of miles, and which on a seven foot six inch draft was extraordinarily fast and dry when driven to windward over a head sea. To be on the safe side for ocean racing only, I should arrange in the construction that it would not be difficult to drop the keel some inches if necessary, but I should not expect to have to do so. Draft, in itself, is not a desirable feature, and I hope that if a universal ocean racing rule should come into being before long, excessive draft may be taxed. Possibly the simplest way would be to penalize anything above a certain ratio of draft to water line length. But this is a matter for rule experts. This has been a digression from *Tiercel*, but it arose from the consideration that she is fast and weatherly, although her draft is only seven feet six inches on a water line length of 50 feet.



The relative merits of the Bermuda sail and the gaff sail are still a matter of discussion for cruising. As both have their good points no definite conclusion is likely to be reached. A man likes the things with which he is familiar, and a natural conservatism had made me remain in favor of the gaff sail, until I went to sea in *Tiercel*. But then I was converted to the Bermudian sail — and for one reason alone, which is its astonishing ease of working. I have often sailed *Jolie Brise* with only one other man, and I know what was entailed in getting underway, and in stowing up at the



In this gooseneck the spar can rotate freely upon a steel spindle.



The mast track, showing slides running inside hollow track.

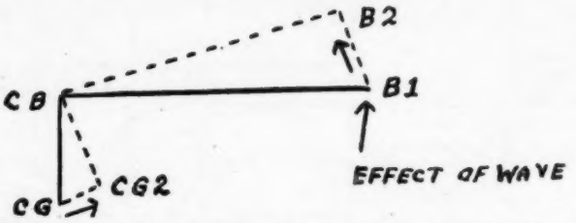
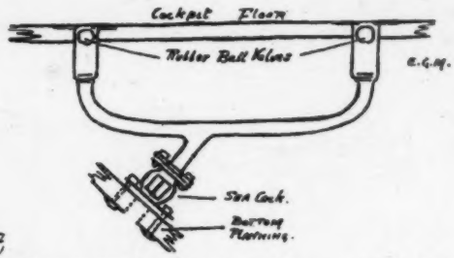


Diagram showing the effect of a wave as it meets the ship's bow.



The drain pipes for the cockpit are fitted with rubber ball valves.

end of a passage. Once at sea, things worked easily enough, but I think one could easily get *Tiercel* under way in ten minutes with two to do the work, if there were any need to do so, and that without any heavy work, except for the anchor. *Jolie Brise* was quite another matter. The labor is saved in having no gaff to hoist, or topsail to set, and in having the jib all ready, hanked upon its stay.

Two points in which *Tiercel* differs most from other Bermudian cutters which I have seen, are that she has a loose-footed mainsail with cloths running parallel with the leech and the foot, and that the jib stay can be slacked up if necessary, so that the sail can be shifted without a man having to go out upon the bowsprit. In harbor this is of no consequence, but it may be of the utmost importance at sea.

An objection which might be made against *Tiercel*, particularly for sailing in American waters, is her very small sail area, about 1700 square feet of working canvas on a ship having a 50-foot L.W.L. I do not think that at present she could be called fast in light breezes, but I believe that this could be remedied by providing her with several jib-topsails, ranging from an enormous reaching sail to a "baby jib topsail," such as racing yachts sometimes use when working to windward in a fresh breeze. She has a very large fore triangle, and consequently can carry a large spinnaker. For ocean racing, I believe that the Bermudian cutter rig, with a big fore triangle, of which only 85 per cent counts for measurement, and with the very large area of untaxed reaching sail which it provides, will be the most efficient in our waters. Apart from the question of efficiency, it is a fine thing, in a seagoing ship, to have the mast well aft. The weight above deck is kept nearly amidships, the spread for the rigging is better, and the more equal division of the sails before and abaft the mast makes for ease in working.

Cost in the running of a sailing yacht is more or less proportional to the sail area. The area decides the number of the crew, the cost of the sails, and of the spars and rigging. Efficiency and economy, it seems to me, are to be gained by having a hull so easily driven that only small working sails are needed. The smaller the sails, for any given hull, the less likelihood is there of accident to the gear, and for these reasons a small working sail area for ocean cruising and racing seems to me best. As great a variety of lighter sails as the owner likes to go in for can be added.

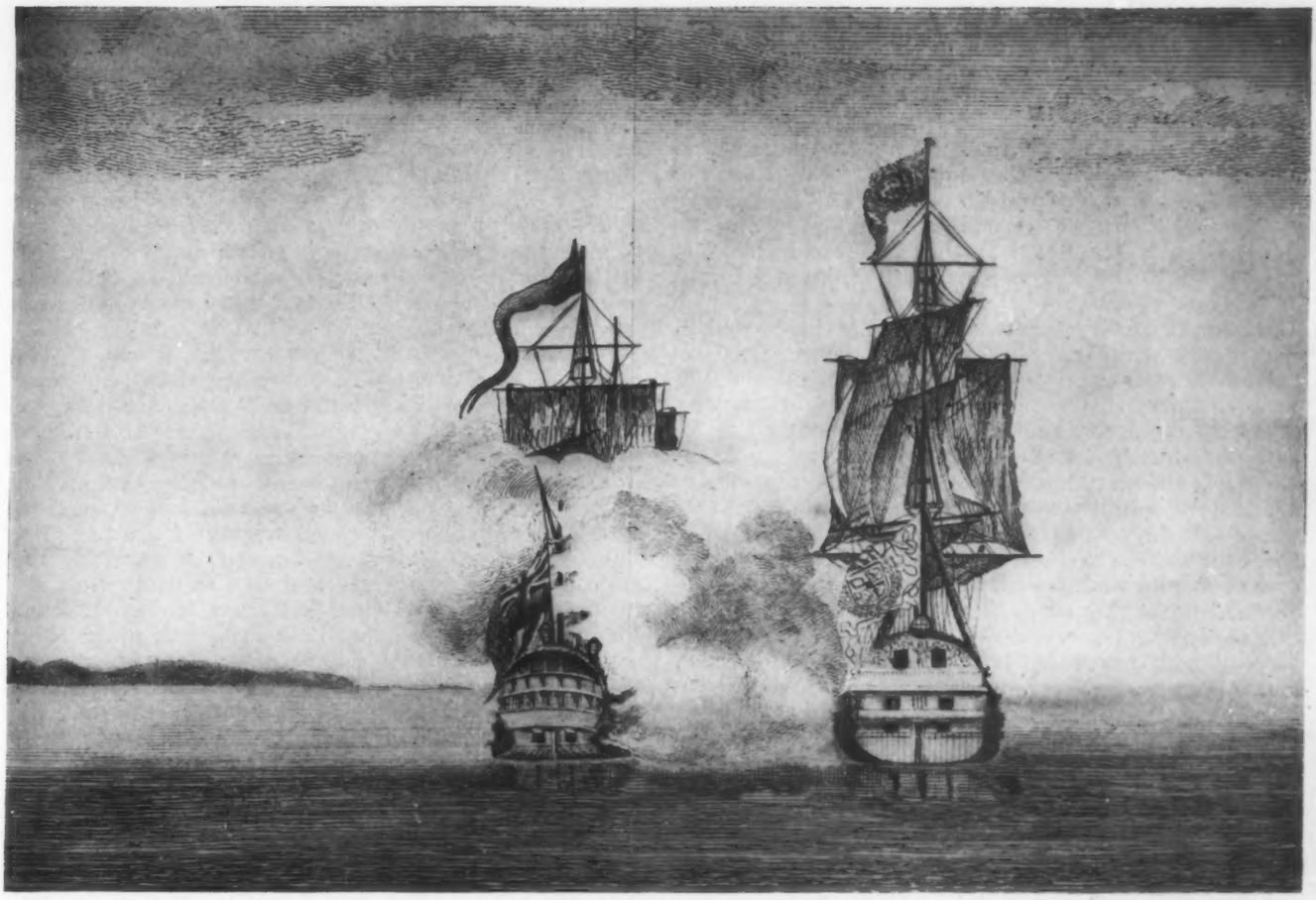
There are a few points about the fittings in *Tiercel* which appeal to me particularly. One is the combination of wheel and tiller steering. Personally, I prefer a tiller at any time except when the yacht is under power, but I know that this is an old-fashioned liking. In *Tiercel* one can have either at a moment's notice, and both are independent of the other. The tiller can be kept shipped at the same time as the wheel, and works over the top of it without any inconvenience. To change from one to the other, all that is necessary is to ship or unship a single large pin in the wheel gear. This is easy to reach, and is all the easier to do because the rudder can be held steady meanwhile, whichever method of steering happens to be in use at the time. The wheel gear is made on the principle which is used in the big Scottish drifters. The steel shaft running from the wheel has a quick thread on it which actuates a sleeve connected by an arm with a crank upon the rudder head. This gear works under the deck, while the rudder head projects above it and the tiller is fitted in the usual way. The whole thing is simple and very strong, and provides, I think, the most reliable steering mechanism possible, and the greatest protection against a complete breakdown of the steering gear, a mishap which has been my chief cause of anxiety when hove to in a really bad sea. At such times it would be possible to secure the helm, using both forms of steering gear at once, and as each has its separate attachment to the rudder, the likelihood of breakage should be about halved.

A very satisfactory fitting is that of the drain pipes for the cockpit. This may be seen in the diagram. The rubber ball valves are the same as those used in our National Life Boats, and work admirably.

In the past, tracks for Bermudian sails have given much trouble. I believe that there are several satisfactory patterns now, but the one which Dr. Ward designed himself for *Tiercel* is worth attention, on account of its great strength and neatness, and the splendid way in which it actually works. The hard brass track is screwed to the mast with galvanized steel screws, and the battens with brass screws. The slides are brass castings. We found no difficulty at all in reefing the mainsail while running before a strong wind, and without having to haul in the boom. I could not help thinking of the extra work needed to reef a cutter under the same circumstances.

The gooseneck for the boom is not of the usual kind. I have often noticed that when a mainsail is "smanging," as the fishermen say, every time the main sheet comes taut the boom is given a violent rotary jerk owing to the sail being secured to the top of the spar. So, in *Tiercel*, I suggested trying the arrangement

(*Continued on page 106*)



"His Majesty's Ship the *Centurion* engag'd and took the Spanish Galeon call'd *Nostra Seignora De Cabadonga*, from Acapulco bound to Manila." From a drawing by Lt. Piercy Breet, an officer of the *Centurion* during the battle.

Wide Ports and on the Leeward

The Capture of a Famous Spanish Galleon by a British Man-of-War

By WILLIAM KILMER

IN an article previously published (Flying Proas of the Ladrones. YACHTING, August, 1929) we were with the *Centurion* (British Man-of-War, 60 guns and 400 men) while she lay at Tinion, in the Ladrones, during October of 1742. During his stay at Tinion and Guam Commodore Anson of the *Centurion* gathered considerable information concerning the habits of the famous Spanish galleon plying between Manila and Acapulco, Mexico, and this information, together with that already in his possession, led him to believe that the galleon would pass between Guam and Manila on her homeward-bound trip about the following June 1st. The intervening winter was spent in comparative idleness in adjacent ports, including Formosa and Canton.

May 31, 1743, finds the *Centurion* in latitude 12 degrees, 10 minutes north, or about six leagues off the coast of the Island of Samar in the Philippine group. In this position they expected to sight the sail of the galleon and her escort. All hands on board the *Centurion* were keyed up to the highest pitch of excitement and expectancy. The anxiety of the crew is apparent from the following entries taken from the diary of one of the *Centurion's* officers:

"May 31st — Exercising our men at their quarters, in great expectation of meeting with the galleons very soon, this being the eleventh of June their stile." (Note "stile" for style: "their stile" indicating difference between lunar and calendar month method of calculation.)

"June 3rd — Keeping in our station, and looking out for the galleons."

"June 5th — Begin now to be in great expectation, this being the middle of June their stile."

"June 11th — Begin to grow impatient at not seeing the galleons."

"June 13th — The wind having blown fresh easterly for the forty-eight hours past, gives us great expectations of seeing the galleons soon."

"June 15th — Cruising on and off, and looking out strictly."

"June 19th — This being the last day of June N.S. the galleons if they arrive at all must appear soon."

The day following this entry (June 20, 1743), at sunrise, a lookout in the masthead sighted a sail in the S.E. quarter. This caused general joy to spread through the entire ship, for in their minds there was no doubt that this was one of the galleons with her escort probably close in her wake.

The *Centurion* instantly stood towards the galleon. At 7:30 A.M., the galleon fired a gun, and took in her topgallant sails but continued to bear down on the *Centurion*. About noon the *Centurion* was little more than a league distant from the galleon, and could fetch her wake so that she could not escape. By this time, no second sail being sighted, Anson concluded that the galleon had separated from her consort. At this time the galleon haled up her foresail and brought to, under topsails, with her head to the northward, hoisting Spanish colors and with the Standard of Spain flying at her topgallant masthead.

During this time Commodore Anson had prepared all things on board the *Centurion* for an engagement. He knew he was outnumbered in men, but about equal in guns. In order to utilize his man power to the best advantage and avoid confusion, he selected about 30 of his best marksmen and distributed them into his tops (these later fully answered his expectations). From the remaining he fixed only two men to each gun on the lower tier, whose sole duty was that of loading. The remainder of the force was divided into firing details of ten to twelve men each who were instructed to move about continually and fire such guns as were loaded.

This method permitted the *Centurion* to make use of all guns with a constant fire, instead of the customary costly and ineffective broadside with its dangerous intervals between. This tactic of Anson's later caused great consternation among the Spaniards as it was their custom to meet only broadsides from their enemy, and they were trained to meet such attacks by falling down on their decks when a broadside was in preparation and to remain in that position until it was fired; then to rise and man their guns with great speed, until the next broadside was ready.

About noon several squalls of wind and rain obscured the galleon, but by 1 o'clock the squalls lifted, and the galleon was seen to be resolutely lying to. At this time the *Centurion* was in complete readiness and hoisted her broad pennant and colors. She was now within easy range of the enemy who had apparently been slow in clearing ship, as they were throwing overboard cattle and lumber. The first shot from the *Centurion* was from a chase gun. The galleon returned this fire from two of her stern chasers. The ships were now within pistol shot of each other. Anson set his spritsail yard fore and aft in order to be ready to board the galleon. Not to be outdone, the Spaniards rigged their spritsail yards fore and aft.

The engagement now began in earnest. For the first half hour, the *Centurion* overreached the galleon and lay on her bow. From this position, and due to the great width of her ports, the gunners could traverse nearly all guns across the enemy's deck with a deadly enfilade fire. The narrow ports of the galleon permitted only a few of her guns to bear on the *Centurion*. At this time the mats with which the galleon had stuffed her netting suddenly burst into flames and burned violently, the flames reaching half as high as the mizzentop. The Spaniards cut away the netting with great difficulty and loss of time, as the *Centurion* still held her advantageous position and kept up her fire with great regularity.

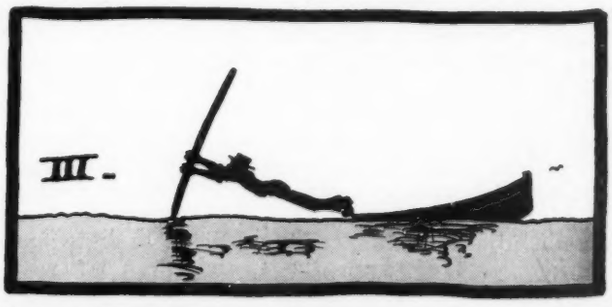
Anson's top men by this time had driven all the Spaniards from their tops, wounding or killing every officer but one that appeared on the quarter deck, including General Don Jeronimo de Montero, in command of the galleon.

The action continuing, the *Centurion* gave up the superiority from her original position and came close alongside the galleon, which maintained a steady fire but not sufficient to hinder Anson from sweeping the galleon's deck with grape shot so effectively that her decks were covered with dead and wounded. With their leader wounded and in a shower of grape shot, disorder soon overtook the Spaniards and their firing rapidly diminished. Finally, in desperation, they fired a final broadside from five or six guns, then struck the Standard at her main topgallant masthead and formally surrendered. Her colors had been burned off the staff.

Commodore Anson captured 1,313,843 pieces of eight and 35,682 ounces of silver from the galleon. She was the *Nostra Signora de Cabadonga*, crew 550 with 36 guns mounted and 28 pedrerves in her gunwale, quarters and tops, each carrying a four-pound shell. The prize captured in gold and silver was equivalent to 400,000 pounds, sterling, and is believed to be the largest amount of prize money one ship has ever gained. According to an old British naval chronicle, "This treasure was drawn in triumph through the City of London in thirty-two wagons to the Bank of England, preceded by a band of military musicians and guarded by a detachment of the ship's company."

The casualties of this engagement were: Losses by the galleon, 57 killed, 84 wounded; *Centurion*, 2 killed, 16 wounded.

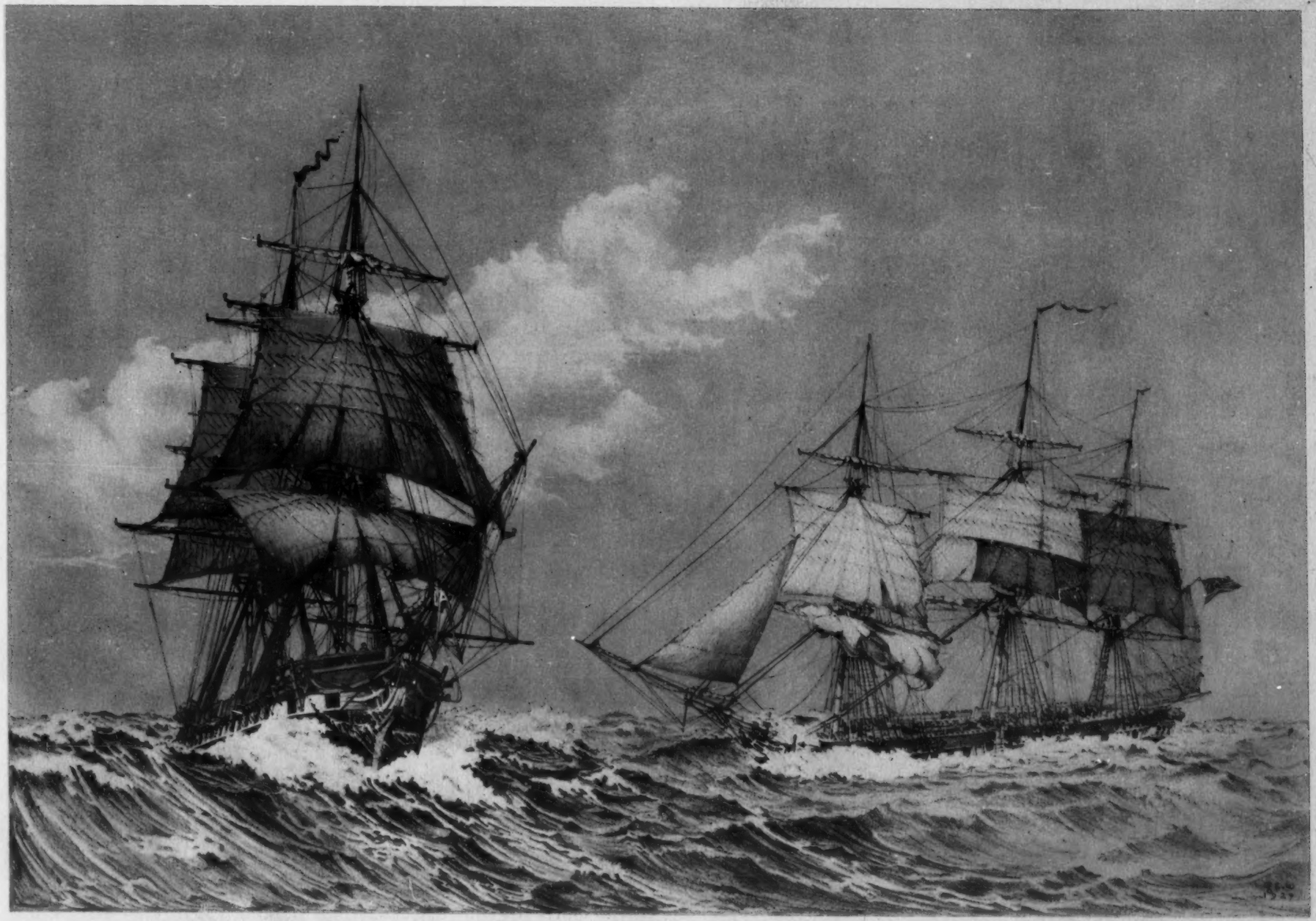
The galleon was later drafted into his Majesty's service under the command of Lieutenant Saumarez, one of Anson's officers on the *Centurion*.



FAIR WEATHER

From an etching by Philip Kappel

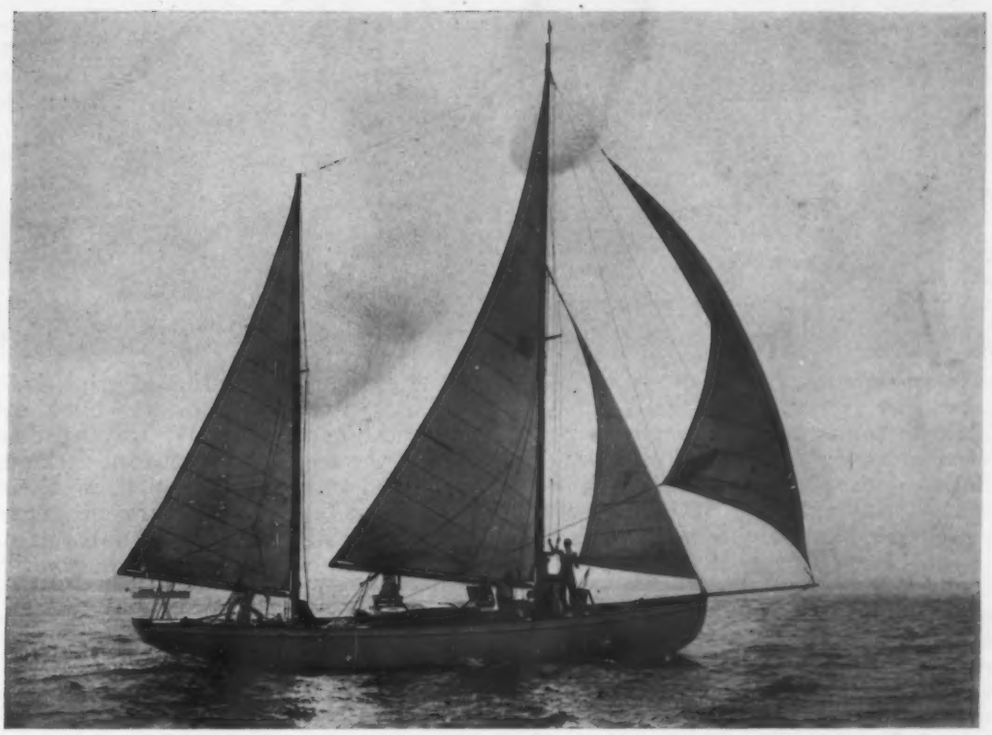
(Courtesy Schwartz Galleries, New York)



THE FRIGATES *CONSTELLATION*, 38 GUNS, AND *BOSTON*, 28 GUNS

From a series of lithographs of American Ships by George C. Wales

(Courtesy Charles E. Goodspeed & Co., Boston)



A beam view of *Carlsark*, showing her reaching jib set on a demountable bowsprit. For the Transatlantic passage the sprit was removed, and the tack of the jib brought to the stemhead.

Across the Atlantic in *Carlsark*

Part I — The Skipper Transforms an "Offshore" Voyage into the First Stage of an Ocean Passage

By HENRY M. DEVEREUX

BY completing a Transatlantic passage in *Carlsark* we have not made history for her, but have simply added to an already noteworthy career. For she is none other than the ketch *Sowitasgoht*, renamed, which was sailed across the Atlantic in 1923 by four Austrians, Messrs. Plunder, Jochum, Einsle, and Ledergerber. Mr. Plunder, now a sculptor residing in New York, was the designer; and with his shipmates, built her at Bregenz, Austria, on the shores of the Lake of Constance.

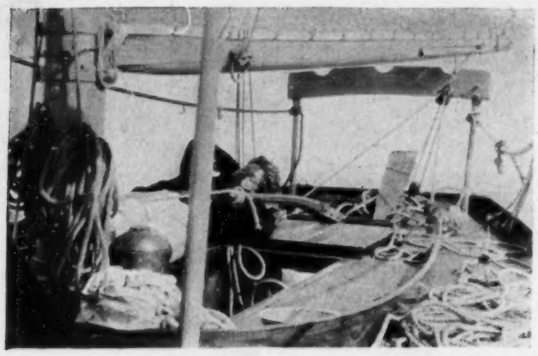
To reach the sea from Constance it was necessary to ship the vessel by railroad flat car. Limitations imposed by the width and heights of the tunnels made a form somewhat unusual for ocean work. With these handicaps, Mr. Plunder produced an excellent and easily handled sea boat, as we can testify from first hand experience.

For a time the *Sowitasgoht* (which is a bit of local slang for "As far as it goes") was sailed about the waters of Lake Constance. Then she was loaded on a flat car at Frederickshaven and shipped to Hamburg, where she was put overboard, rigged, and made ready for sea. From Hamburg the course was to Southampton, England, where she stayed a few days. Leaving Southampton, the next port of call was Madeira, and from there a course was laid for New York, the *Sowitasgoht* anchoring at quarantine almost on the day that Alain Gerbault arrived in the *Firecrest* at Fort Totten, early in September, 1923.

Carlsark is a jib-headed ketch of the following dimensions: l.o.a., 46′ 0″; l.w.l., 36′ 0″; beam, 10′ 3″; draft, 6′ 3″; Customs House tonnage, 12 tons. Her sail plan is quite small, with mainsail of 380 square feet, jib of 138 square feet, and mizzen of 200 square feet, giving a total of 718 square feet.

Our voyage began at Ithaca, on Lake Cayuga, one of the Finger Lakes of Central New York. A yacht the size of the *Carlsark* on Cayuga is quite a novelty, to say the least. Last fall, during a lull in Cornell's football season, Carl Weagant, her present owner, together with several others from the university, brought her from her home port at the Bayside Yacht Club on Long Island Sound, to Ithaca, *via* the barge canal. During the winter of 1928–1929 she lay at the boathouse, while all equipment was brought ashore, and the motor thoroughly overhauled at the College of Engineering. Willing hands put her in full commission by May 1st. And thus, after commencement, a bonny ship, fully found, and well stocked with provisions, good gear, and navigating equipment, was ready for the first leg of her cruise.

Late in the evening of June 20th, we cast off from the mooring at Miller's dock, Ithaca, and the voyage was under way. Far above, over the hill the full moon rose, searching out the little boat alone on that long and beautiful freshwater lake. And as the chimes of the clock tower at midnight told "The irrevocable hours, futile as air, or strong as fate," the lights of Cornell dissolved into darkness, and we were alone on Cayuga's waters.



(Left) Schoales takes it easy at the stick.

Beating into Sydney was wet and lively.

From Ithaca to the open sea was a good month's trip. Masts were taken out at Cayuga, beneath the New York Central bridge. Under power through the barge canal, we arrived at Oswego two days after leaving Ithaca. Here followed three days of hard work — re-stepping the masts, scraping, painting, etc. Clearance papers for "foreign ports" were obtained at this lake port.

Leaving Oswego with a beautiful northwest wind, we sped across Lake Ontario like a piece of shrapnel with reefed mainsail, to Madison Barracks, near Watertown, N. Y. We then made for the St. Lawrence, *via* Cape Vincent and Clayton. Once through the Thousand Islands we stopped at Alexandria Bay and Prescott; and then, after the canals, came Morrisburg, where Mr. Weagant, Sr., left us. Mrs. Weagant, who had come aboard at Clayton, continued with us until we reached Montreal. After much maneuvering and sounding through the tricky channels, we tied up at Dorval, at the Royal St. Lawrence Yacht Club, our host for several days.

At noon of July 7*th*, we made our departure from West Montreal. As we finished the run through the Lachine Canal and headed down the open St. Lawrence, the ship's company was as follows: Carl L. Weagant, owner, master, navigator, and chief engineer; Edward J. Brumder, pilot and able seaman; Dudley N. Schoales, assistant engineer and able seaman; Joseph R. Rummler, cook and able seaman; and the writer, cook and boatswain.

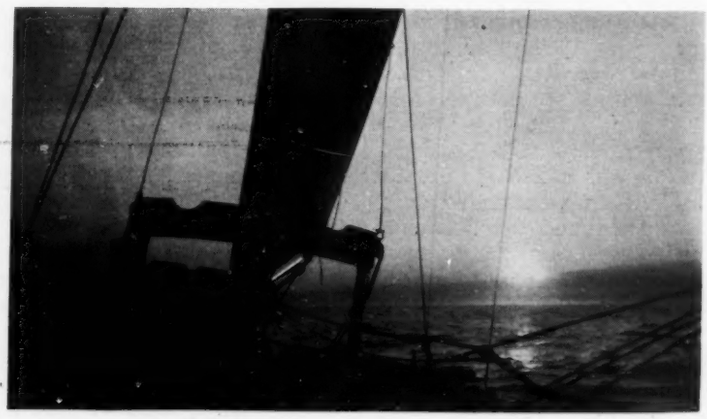
It was a great sail down the river from Montreal. Stops were made at Sorrel and Quebec, where we beached the *Carlsark* and painted and cleaned, right in the shadow of the citadel. After Quebec, upon approaching Stone Pillar, the flood tide and light airs were too much for our motor, so we anchored and rowed to the rugged island to try our French on the lighthouse keeper. On the favoring tide, again under power, we came to Murray Bay. From here to the Saguenay River was our next stretch, about five hours under power, for the fickle wind failed us once more. Near the river we had a great breeze, and boiled along between the bluffs at the entrance, watching for the famous white porpoise and the whales.

The Saguenay is a bit of nature unspoiled — rock cliffs, steep and gray, covered with sparse evergreen growth, and grim skeletons of dead trees. About us was the water — black, with a deep and mysterious appearance. We traveled down the golden path of the setting sun, between dark and silent cliffs, for it was twilight until 10:30. At Eternity Cove we anchored at the foot of the cascade, greeted only by an owl. Here the water was 72 fathoms deep, and our anchor cables would not reach bottom. We hooked on to the rock shelf — and, of course, grounded on the ebb tide! Under way next day we sailed wing and wing down the river to Tadoussac, the oldest French settlement in Canada.

We headed for Gaspé, with a favoring southwest wind over the starboard quarter. Early morning brought fog, but it soon cleared and visibility improved. There were some pooping seas, making an unpleasant roll for fine adjustments. On this run we set up the master compass, a U. S. Navy standard seven-inch instrument, mounted between the main companion and the skylight. A Starret Builders' Level just fitted on top of it, most useful for cross bearings. Towards evening the sea moderated, but in the wee small hours (July 14th) the sky became as black as a shipyard at night, and we had the benefit of some northwest thunder squalls. Our ballooner blew out of the bolt ropes, and it was all hands and the cook; but the old kite had seen much service and had earned an eternal rest. The windward backstay tackle let go, but the stout stick of Oregon pine held.

Now we kept about three miles off the eastern bank and felt the assistance of the Gaspé current. On the morning of the next day the vessel neared the entrance to Gaspé Harbor, with a fine northwest wind which diminished as we approached land. We entered the outer harbor under power, stopping to pass the time of day with an old Scotch fisherman who lived at Douglastown. He took quite a fancy to Weagant, and on our departure presented us with three enormous flounders. Fresh fish for dinner — fillet of sole, fried in deep fat, with beaten egg. Half of a pleasant day was spent at anchor in the inner harbor, among the Gaspé double-ended fishing boats and the playful loons. On our departure we again encountered the fisherman, and, this time, he undertook to teach Dudley and Carl to fish for cod.

Looking back now on the voyage, it is amusing to review the skipper's plan for the Transatlantic crossing.



The *Carlsark* sailed away from Sydney at sunset, outward bound.

Conceived last March, and unfolded step by step, it prepared us for the passage by gradual stages. Down the St. Lawrence the short runs gradually increased in length. And now here we were, leaving the outer harbor at noon of July 16th, everything in condition for a run to Cape Breton Island, while the gannet rookeries on St. Bonaventure Rock screamed noisy farewell.

A Canadian fishing schooner on the Banks.

Gaspé to Cape Breton was glorious sailing — once clear of the land where squalls and light head winds teased us. The first two evenings were a sort of fairy land sail. The wind, a moderate southeaster, made sailing a joy, with full moon of Hallowe'en orange in burnt umber, and steel gray sky. At noon of July 18th we were close to the shore of Cape Breton, trying to make the Gut of Canso against a moderate head wind. *Carlsark*, not being good to windward under those conditions, we put about and laid the course to pass to the north of the cape.

Fresh water had been taken on at Tadoussac, but we were prodigal; now all the 350 gallons were out, and one had to suck lemons when thirsty. Rounding the cape in the early morning, the wind headed us once more, and forthwith we commenced a long beat into Sydney, which became more and more lively with the approach to the inner harbor. It was exciting, if annoying sailing, and real oilskin weather, with a smiling sun and all-enveloping spray. At the Royal Cape Breton Yacht Club, where we arrived at 6:00 P.M., July 19th, we inquired for the Cruising Club Fleet, and were told that we had been taken for the first instalment.

We lay off the yacht club our first night, not far from an ancient square-rigger in peaceful retirement at a nearby dock. As the moon arose in a clear sky behind the old vessel, it softened her outlines, making a fanciful picture of the old-timer, still romantic and mysterious in her days of ill fortune.

Here at Sydney we made ready for a run to Cape Race, Newfoundland, so as to be independent of the shore for two weeks, or three in a pinch; at least, that is the excuse Weagant made for our heavy loading. Next day we lay at the dock of the Reeves' Supply Company, the explorers' dock, to outfit for further adventure. At this same dock Dr. Grenfell, Donald B. MacMillan, and other arctic explorers stop to outfit for points north. Carl obtained clearance papers for the Azores at the customs; now I know why he went to the offices alone. Meat, vegetables, dry stores and fresh fruit, including many oranges, came aboard. These same oranges lasted almost to the Azores. The fireplace was set up — a Simpson Lawrence open grate affair, with blue tile and brass rail and trim. Previously, part of the bureau in the stateroom had been cut away to accommodate it; now the heater was permanently installed and insulated, with a smoke pipe leading through the bridge deck. In this and many other matters the people at Sydney helped us wonderfully. Joe put in a busy day at boatswainry, while I went marketing. To help in the deception, I was told to telephone Casey Baldwin's home at Beinn Breagh, and tell his daughter to expect us at the Bras d'Or Lakes when the Cruising Club would be there, after our trip to Newfoundland.

In the late afternoon I took the ferry to North Sydney in search of a sail to replace our blown out ballooner. I hunted up "Charlie" Young, the local sailmaker, but he had no spare sails. We visited the store for canvas, and then he and I and his assistant laid out a new one, of 10-ounce material. We three sewed, roped and spliced, so that by 10:30 Sunday morning a new kite was ready. We knocked out only five hours' sleep, rolled in the folds of the sails. This new sail I nicknamed "Saturday Night." It is a combination of several things, spinnaker, ballooner, reacher, Genoa jib, or what have you. The luff is 35 feet and has 11 snaps, while the leech and foot are respectively 20 feet six inches and 20 feet. Snapped onto the headstay it becomes at will a reaching or Genoa jib. On our spinnaker boom "Saturday" draws well. It is of the same weight as the mainsail, but of coarser material. By this time also, a hurricane cover for the deckhouse had been hand sewn.

The *Carlsark* picked me up at North Sydney, with the new sail, the hurricane cover, and a Walker Cherub Log which was gathering dust in Charlie's loft. Commodore Barrington brought me out in his tender and came aboard to inspect the ship. He helped us to get some tremendous trifles at the North Sydney stores on Sunday. Near us at the dock were four Lunenbergers —

(*Continued on page 114*)

(Left) The skipper takes breakfast in his bunk.

Entrance to Eternity Cove, on the Saguenay River.

International Star Class Championship Goes to the Chesapeake

"Eel" Wins Hard Fought Series from Twenty-three Boats

By WILLIAM H. TAYLOR

A TWO-BOAT race with 23 boats taking part — that was what it turned into when "The Greased Eel of the Chesapeake," otherwise *Eel*, very ably sailed by Graham and Lowndes Johnson of St. Michaels, Md., won the Star Class international championship at New Orleans from the home boat, *Sparkler II*, sailed by Gilbert Gray and Prentice Edrington. A fifth and a fourth in the first two days' sailing in strong breezes and a nasty chop, put *Eel* in a tie for second place behind *Sparkler*, and though *Eel* won the next three races straight it was not until the final day of drifting, when *Sparkler* got entangled in the competing fleet while *Eel* was out clear ahead, that the Chesapeake boat actually took the lead on points.

There were other boats and crews in that fleet gathered from various parts of the globe that might have won, but for one reason or another none of them got going. *Peggywee*, from Western Long Island Sound, for instance, won the first race and then dropped back. *Budsal II*, from Peconic Bay, which made a good record the rest of the week, withdrew after a foul in the first race and was thus hopelessly out of the point competition. *Okla II*, of Southport, Conn., which won the Atlantic Coast championship and later the New Orleans Lipton Trophy series, did not give her usual performance until toward the end of the series. *Juno*, of the Delaware River, which surprised everybody by her performance when the weather got light, broke down in both of the first two races. Thus, some of the contenders are accounted for.

The first day it looked as if *Peggywee* was the lone star on the horizon. Arthur Knapp and Newell Weed, skipper and crew, got her away to a beautiful start and went out ahead, and nobody ever got near her again, for she finished two minutes ahead of the second boat, *Sparkler*, after leading at every mark. It was a tough day on Lake Pontchartrain, a 20-knot east nor'east breeze piping in from the open lake and kicking up a short, steep, nasty chop, aggravated by the shoalness of the water and the fact that the bulkheaded shore of the lake caused the seas to rebound against each other. Three boats were disabled.

Sparkler looked like a gone goose at the start of this race, for she was mixed up at the line in the foul which caused *Budsal's* withdrawal and was about the last boat over after the collision. Once started, though, she bored through the chop like a destroyer and reached the weather mark in third place, just astern of *Chico*, which she eventually passed to finish second. *Eel*, too, had a long uphill fight for the fifth place she eventually took. Never a ball of fire around the starting line, she was one of the last over, worked up to eleventh on the first windward leg, passed three boats running down wind, a fourth on the second windward leg and two more on the run home.

The next day's weather showed no improvement and *Juno* and *Tomboy* were again disabled. *Sparkler* got the start this time and led all the way. The Robinson brothers, in *Budsal*, took second place after a scrap with

Sparkler II, of the New Orleans Fleet, 1928 champion and runner-up in the 1929 series.

Photos by Simes

Eel, owned by the Johnson brothers, of St. Michaels, Md., captured the 1929 championship for the Chesapeake Bay Fleet.

The winning crew. (Left) J. Graham Johnson, skipper, and C. Lowndes Johnson, crew.

the Atwater brothers, in *Sunbeam*, but *Budsal* was not in the running, due to her withdrawal the day before. *Eel* again worked up through the fleet after a late start and finished fourth, which put her in a tie with *Peggywee* at 39 points for second, *Peggy* having finished eighth. *Sparkler*, however, was now 45, six points ahead of all, and looked like as sure a bet as you could find in a Star international series. *Sunbeam* had 37 points, but dropped in the next few races.

The next day the breeze was lighter and it was clear to those who had been tuning up on the lake for some days that it was going to be even lighter before they got through. Also it was clear to these gentlemen that *Eel*, for which they had developed a great respect from watching her in the light weather before the series, was about to be heard from.

Peggywee, after her lapse of the day before, got away in the lead and stayed there for five of the six legs of the double triangular course, while *Okla II*, going at her old gait for the first time under the ministrations of Joe Watkins and Bill McHugh, came up from sixth to a very close second and *Eel* slipped past *Sparkler*, to be third at the last turn. There she got a break, for Knapp and Watkins, with the low-hanging sun in their eyes, mistook their course after rounding the buoy and held too high. The mistake was only momentary, but it was all the Johnson brothers needed to let them through. When they were all straightened out again *Eel* had the lead, with *Peggywee* and *Okla* between herself and her most dangerous competitor, *Sparkler*.

That was the real break for *Eel*, those two Long Island Sound boats beating *Sparkler* in, for it cut *Sparkler's* lead on points in half and put *Eel* in a threatening position with 62 points to *Sparkler's* 65. *Peggywee* had 61, and these three were definitely established as the only real contenders, barring accidents, for *Okla*, fourth in the standings, had but 57 points and the next best boats, *Rhody* of Providence and *Fleet Star* of Gravesend Bay, had but 48 each.

Such was the situation on Saturday night, and such it remained until Wednesday afternoon, for Sunday was a day off for the racing fleet and Monday and Tuesday were days off for the wind. The last two days were thoroughly unenjoyable from the standpoint of the racing men, who had to sit out there in the broiling sun and try to make their boats go on the chance that a breeze might come up and allow a finish. Monday they barely made the first round of the course. Tuesday, when the race was started before noon in the hope that the fading easterly would hold long enough for a finish, the leaders rounded the last turn and headed for home, with *Budsal* and *Eel* in the lead, before the three-and-a-half-hour time limit expired.

In a vain attempt to get off two races and finish the series on Wednesday, the race committee routed everybody out of bed before breakfast and shooed them out of the boat pens to the starting line off the clubhouse, where they started the fourth race at 9:15 A.M. with a moderate breeze that was already beginning to show signs of weakening.

Peggywee, third of the three remaining contenders, eliminated herself from the struggle, to all intents and purposes, in the first leg of the race, which was a triangle. She got tangled up in the rest of the fleet and eventually finished twelfth, just astern of *Okla*, which put the two Long Island Sound boats out of the running.

Eel, away to a late start, slid up through the fleet in startling fashion. Halfway up wind to the first turn, she was second and threatening *Sparkler*, in the lead. Before they reached the buoy she had forced *Sparkler* about and was in command of the situation, and from then on she simply sailed away from them all in the failing breeze to finish more than six minutes to the good. But no lead, however long, could add more than a single point to her advantage, for Gray and Edrington, with a splendid start such as they nearly always had, took *Sparkler* out ahead and clung to second place after *Eel* passed her. *Juno*, going like a streak after being recalled at the start, came up to third position on the first turn and at times threatened *Sparkler* but was never quite able to get past her.

Thus, on the eve of the final race there were *Sparkler*, with 87 points, *Eel*, with 85, and the rest of the fleet, with no points to speak of but with great possibilities of affecting the final result. Which they did.

With light weather, such as seemed to be in prospect for the morrow, it was likely that *Eel* could win again. But could she overcome *Sparkler's* two-point lead? By her own efforts, obviously, she could not, for she could do no more than win the race, and if *Sparkler* followed her home it was still the latter's series. If one other boat could beat *Sparkler*, a tie. If two others beat her, victory for *Eel*. There were a dozen boats in the fleet that might beat either or both of the leaders, but whether they would do it in the final race, or whether several boats might beat both leaders and still leave them close together in the finish, was the question that tomorrow must settle. The range of possibilities was interesting.

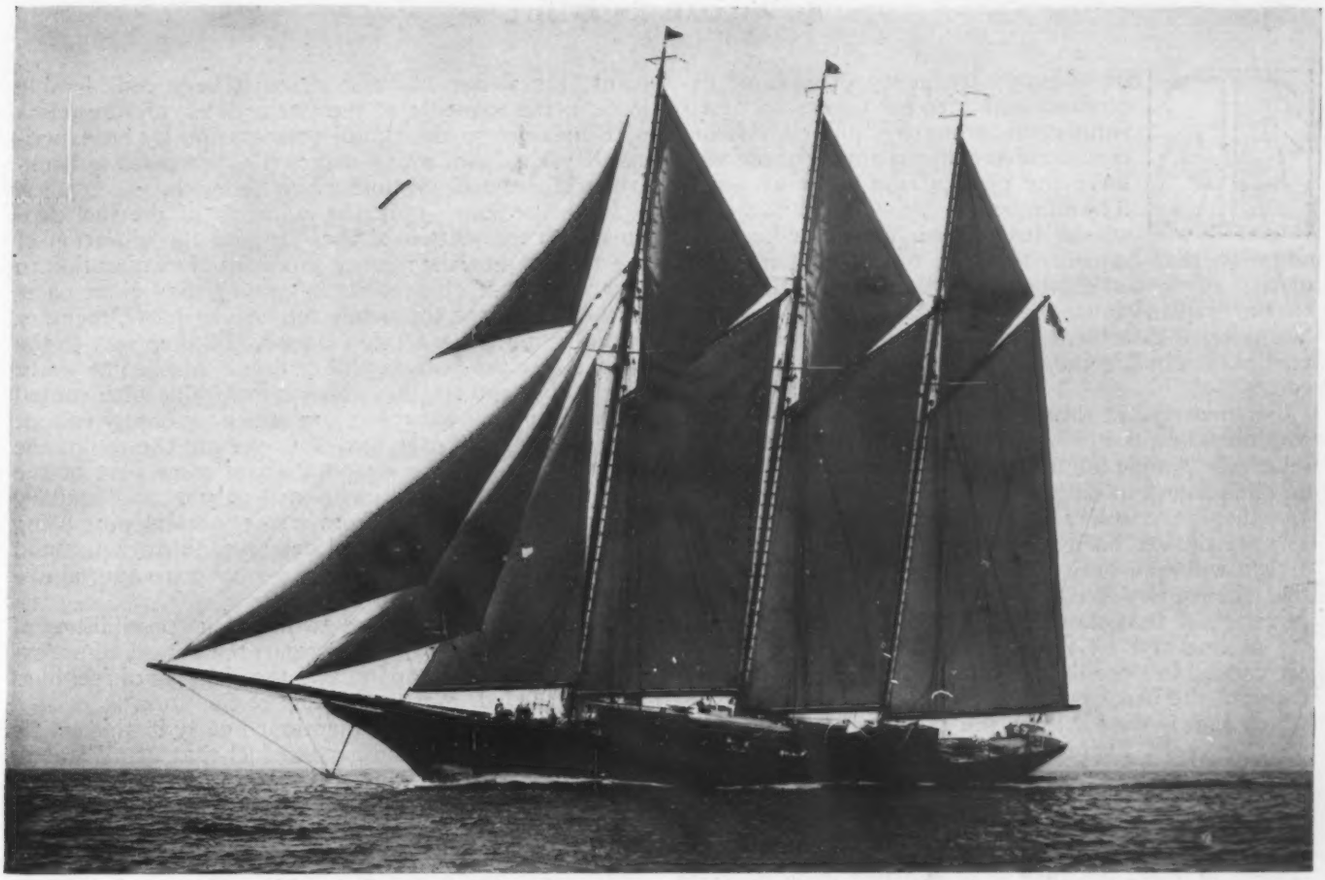
(*Continued on page 98*)

The hospitable Southern Yacht Club, at New Orleans.

Photos by E. Levick

Owned by Carll Tucker, of New York, *Migrant*, launched this summer at the Lawley plant in Boston, is 223 feet in length. H. J. Gielow, Inc., were the designers. Her accommodations are exceptional, even for a yacht of this size. Power is supplied by two Bessemer Diesels.

Migrant—Largest American Auxiliary Schooner Yacht



IN this age of split-second activity, with business done on a time-table basis, sails on ships have given way to more dependable means of propulsion — more dependable, at least, as far as the time element is concerned. Time and tide go on with measured regularity — but the breezes are more temperamental. With yachts it is different. Intended for men who want relaxation and diversion from the turmoil and activity of prosaic business, the sailing yacht will always be popular with yachtsmen. Sailing a ship is a constant challenge to skill and seamanship.

Migrant is the latest large auxiliary yacht to take the water. She is a three-masted Diesel schooner, 223 feet in length over all, with 15,825 square feet of canvas. Yet should the owner desire to make a certain point at a given time, a Bessemer Diesel power plant of 1,000 h.p. will drive the *Migrant* to her destination at a rate of 13½ knots.

The main living and dining saloon, one of the features, extends the full width of the yacht amidships. A wood-burning fireplace adds a touch of cheeriness. There are seven staterooms, each with private bath. On the forward deck, in addition to the captain's quarters and the chart room, is a large deck saloon with a comfortable shelter in the after end.

Migrant was designed by Henry J. Gielow, Inc., for Mr. Carll Tucker, New York Yacht Club. She was built by George Lawley and Sons, of Neponsett, Mass.

Furling the spanker on *Migrant*.

Preventing Gasoline Explosions on Yachts

By WILLIAM REED-HILL

THE unhappy frequency of gasoline explosions and fires on yachts this past summer is a matter that is causing considerable concern among those who have the good of the sport at heart. The number of such accidents, in the season just closed, clearly indicates a situation that demands remedial measures if the popularity of motor driven craft is to be maintained. Casual explanations, such as "carelessness," and the like, after a disaster, hardly do justice to the injured parties, or obviate the need of a deeper analysis of the causes.

Fortunately, at least one remedy is immediately available, and the object of this article is to describe a relatively simple method of *preventing* explosions of gasoline and light oil fuels carried on shipboard for fuel or other purposes. The principles involved apply to ships of all sizes, such as steamers, tankers, etc., but this article will deal only with yachts, since it is assumed that the readers of this magazine are interested chiefly in vessels of that class.

Gasoline and oil fuels above 18° Baumé generally are carried in loose bulk in tanks which, by law and because of the usual pumping or gravity flow devices by which fuel is drawn from the tank for use, are fitted with air-vents. There is, therefore, a flow of air into the tank as fuel is withdrawn, resulting in the production of gasoline or fuel oil vapor in the upper part of the tank. Since this vapor is heavier than air, it naturally remains in the tank until expelled by the introduction of a fresh supply of fuel. Whither it is expelled depends upon the layout; in some cases most of it comes out of the filling opening and the remainder out of the vent pipes; in other cases, tight filling connections may compel it to escape entirely by way of the vent pipes. But, in any case, the fact remains that the mixture displaced creates an explosion hazard, particularly when the filling opening is below decks or when there is no natural or artificial breeze to blow it away from the deck vents. Being heavier than air this vapor will, if not diverted, descend through deck openings and finally lodge in the bilges or other low-lying pockets. Until carried away by ventilation, or thinned to such a degree that its explosiveness is *nil*, this product of open gasoline tanks is a menace to the safety of the boat and should be treated as such.

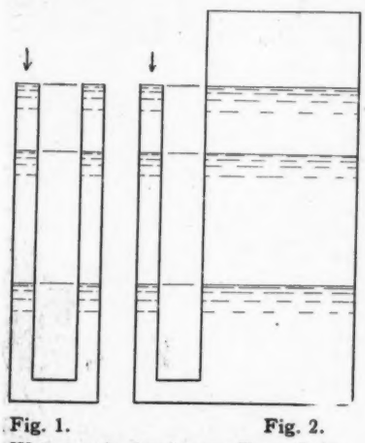


Fig. 1. Fig. 2.
Water seeks level regardless of size of tubes or quantity of water.

There was a comprehensive article on this point, by Mr. Charles H. Hall, in the November issue of YACHTING. Therein, he showed the best possible installation of a suction system with vented tank. As the present article was written without knowledge of Mr. Hall's intention to stress this point, the writer has discovered a very considerable force in the sequence of the two articles; and he refers with pleasure to the skilful presentation by an experienced yachtsman, which makes the best possible background for the suggestions given herewith.

In the ordinary tank the agitation of the fuel produced by the motion of the ship and the vibration of the tank causes the natural processes of evaporation to be accelerated. This results in sending the lighter parts of the fuel to the top, while the heavier parts, together with dirt and other foreign matter, find their way to the bottom. At the bottom will be found, also, some water due to the condensation which is inevitable with vented tanks. Thus, the worst fuel conditions are brought about near the outlet to the feed line, causing the use of the poorest fuel and the evaporation of some part of the best. These points are mentioned only as of secondary interest, the main fact from a safety standpoint being that as the quantity of fuel decreases through use and evaporation the volume of dangerous gas vapor above the fuel increases proportionately.

Summing up, there are two obvious possibilities of trouble with the ordinary system; the danger of an explosion of the fuel vapors, and the clogging of fuel lines by dirt carried from the bottom of the tank.

The available remedy mentioned early in this article is a method of so handling the fuel that at all stages, from filling to point of carburetion, there is no fuel surface exposed to air, nor any free liquid surface in the tank. In this method the fuel is carried by floating it on another liquid with which it does not mix, in a "hard" (full) tank, regardless of violent motion in a seaway. Oil fuels and water satisfy these conditions. Within the scope of this article water will be regarded as heavier than fuel. The heavier liquid, in this system, is called the "vehicle liquid."

More specifically, the method consists of connecting an independent hydraulic column to the bottom of the tank, so controlled that the fuel at all times rides hard against the top of the tank, pressed up by water which entirely fills the space below the fuel. The tank is thus kept chock-full under a slight hydraulic pressure which, however, is not enough to cause structural difficulties or undue expense. The fuel outlet is in the top of the tank, where fuel flows out, when required, by virtue of the balance pressure created by the separate hydraulic column. When filling, the fuel taken aboard is made to eject an equivalent amount of water from the tank. In brief, the tank is *always* 100 per cent full, regardless of the respective percentages of fuel and water.

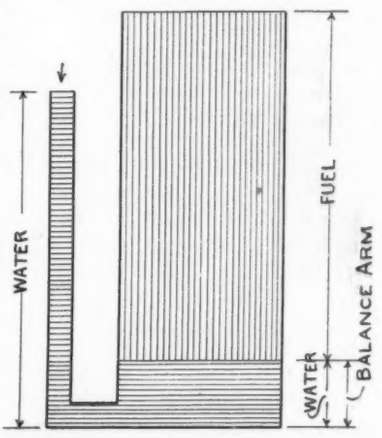


Fig. 3. A certain greater height of fuel is balanced by a given height of water on a balance arm. The legs are full of their respective liquids.

For vessels, the cheapest vehicle

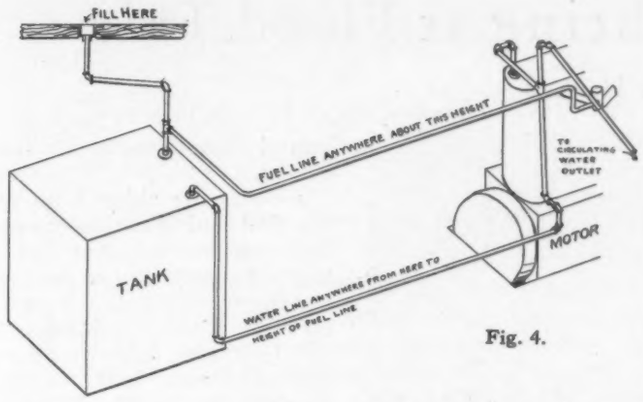

FILL HERE
FUEL LINE ANYWHERE ABOUT THIS HEIGHT
TO CIRCULATING WATER OUTLET
MOTOR
TANK
WATER LINE ANYWHERE FROM HERE TO HEIGHT OF FUEL LINE

Fig. 4.

liquid is, of course, water. It can be fresh or salt, hot or cold. Many large vessels are today carrying fuel over water, with various types of control. Incidentally, many industrial plants are using one or another type of the hydraulic system, on the grounds of efficiency, safety and reduced insurance rates, for storing and handling crude oils, fuel oils, Diesel oils, kerosene, gasoline, and the like.

From the foregoing, it is obvious that the remedy proposed is not merely a theoretical dream but is, rather, a reality that has been developed and put into commercial operation by practical engineers. Enough said!

The diagrams used here show only the idea of one liquid balancing another. Details of the control devices are omitted in order to focus attention on what is shown.

In Figures 1, 2 and 3, the arrows indicate where water is allowed to enter to the desired height. From this start, the various systems now in use were developed.

A finished system looks something like Fig. 4, without details. Here is circulating water from the motor (in the simplest case) acting as the vehicle liquid, and the fuel flowing direct from the top of the tank to the motor. It is of great benefit if the carburetor can be set high.

A glance will show that in these tanks no surging of free surfaced liquid is possible, which is the main point sought from all the angles. The purpose of this sketch, which is merely diagrammatic, is to indicate beyond question that the fuel will go to the motor so long as the second line (for water) is properly regulated. At this point enter the various devices for control. Some problems require only one or two; others require more.

Another type of system is as simple as the one shown in Fig. 5. How the desired result shall be obtained depends entirely on each separate problem, since the application of a system must follow natural law. But, whether large or small, one of its good points is that the fuel line can be run high, when conditions do not interfere, where it is always accessible for frequent observation. Another good feature is that with the lines run high any attention from a machinist can be

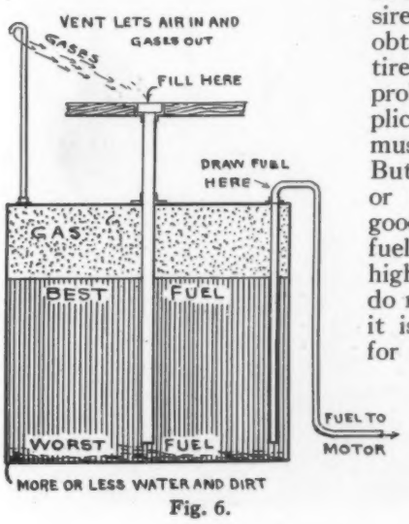


Fig. 6.

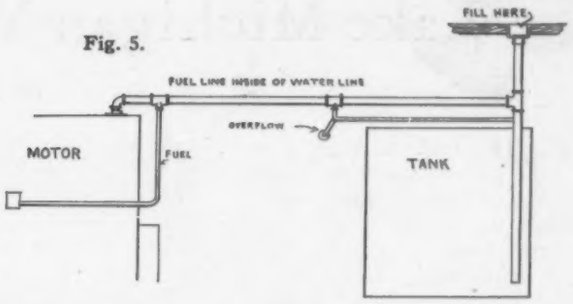


Fig. 5.

given in the briefest time and with the minimum of local damage. (See Mr. Hall's article, YACHTING, Nov., 1929, p. 73.) It can also be so managed that the breaking of the water line in certain types of installation will not only stop all flow of the fuel from the tank, but will return all fuel in the line to the tank except that which is in any branch.

One more illustration is given here to make clear the following tabular comparison of the dangerous way of handling volatile fuels and the safe hydraulic method. The tank in Fig. 6 shows the ordinary way of handling volatile fuels; that in Fig. 7, shows the same tank as it would be under the hydraulic method. From the tank in Fig. 6 you can get neither as good fuel as from that in Fig. 7, nor avoid the waste of a part of it.

Comparison of the Two Methods

OLD SYSTEM	NEW SYSTEM
Fuel in loose bulk:	Fuel over water, in hard (full) tanks:
(1) Gas accumulates over fuel.	No space for gas to generate or accumulate.
(2) Bad filling conditions; odors and spillage. Displaced gases trail away and down. Temperature change and circulation of air give rise to explosive mixture.	Clean filling; no gases to be displaced.
(3) Fuel agitated.	Fuel is quiet.
(4) Service of fuel from bottom of tank, where fuel is poorest.	Service from top of tank, where fuel is best.
(5) Loose water is present to the detriment of the fuel.	No water in fuel.
(6) Loose water, dirt and fuel may show mechanical mixture.	No mixing possible. Fuel remains clean, dry and at full strength.
(7) Loss from evaporation.	No contact with air.
(8) Tanks must be high if gravity service is used.	Tanks may be high or low.
(9) Not all fuel available.	All fuel available.
(10) Tank sounding required.	Self indicating.

In the tank in Fig. 6, where the fuel is carried in loose bulk, there is little restraint to the movement of the liquids in the tank. In the larger types of motor yachts the lack of restraint on the loose bulk may result in the poor behavior of the vessel in a seaway. In commercial craft there are numerous cases where official investigation has shown the bad effect of free surface, the top of the unrestrained liquid in a ship's tanks. Technically, the metacentric height is affected and stability is impaired.

Loose bulk may also

(*Continued on page 98*)

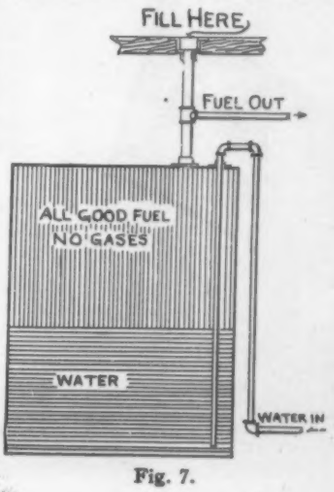


Fig. 7.

Lake Michigan Yachting at Flood Tide

By STEVE HEALEY

TRYING to keep a finger on the active pulse of Chicago's four sailing and two power yacht clubs throughout a season would be a difficult task indeed. Each Saturday afternoon from Wilmette far north to Jackson Park, on the south, Lake Michigan's azure waters are dotted with sailing craft. To the uninitiated whose idle gaze wanders across the water these white sails represent pleasure loving folk interested in boats, whiling away a Saturday afternoon on the lake. To the men out there, however, a different angle presents itself. They are racing in active competition, not so much for whatever bauble may reward them as a prize at the end of the season but for the unadulterated joy of matching wits against their adversaries in a stimulating and fascinating game.

Ariel **won the season's championship among eight contestants in Class R. She is owned by Malcolm Vail and Ned Sheridan.**

So, unable to record the doings of all yacht clubs in the vicinity of Chicago's lake front, I shall attempt a brief summary of the season's schedule at the Chicago Yacht Club.

Beginning on May 30th and ending October 5th, two series are held for "R," Eagle, and Pup classes. Six races are held in Series "A" and the same number in Series "B." Points count for each race and are totalled at the end of the season and a champion declared in each class.

The Class R division, with eight contestants, provided plenty of competition, thrills and a fine brand of seamanship. Mal Vail and Ned Sheridan's *Ariel* won the championship in this class. Tying Bill Faurot's *Fantome* in Series "A" and taking two first, two seconds and a fourth, won for *Ariel* Series "B" and the all 'round championship for the season.

Ariel is the oldest boat in the fleet and is outclassed on hull construction, but indefatigable work on the part of her two owners and the regular crew, Eddie Schnabel and Art Kohlbush, who were forever tinkering and tuning, brought the "old girl" in a winner. In view of the class of boats competing and the astuteness of their skippers, *Ariel's* victory was a remarkable achievement.

In the Eagle Class Dr. George Davis and his crew of colorful Swedes, Gunner and Herman Hamree, and Olie Jonson, carried *Orn* to a record that will stand for years. *Orn* not only captured the season's championship but also placed first in every large regatta. The eight-mile buoy race, a closed event for Chicago Yacht Club boats, was the only event this crafty skipper and his crew did not win. Two of his more notable victories occurred in the sailing of the Columbia Yacht Club's annual race to Michigan City, and in the Nutting Cup Series.

In the race to Michigan City, a distance of 32 miles, *Orn* was returned the victor over Rear Commodore Metz's *Altair* by a margin of three seconds. We would not be surprised if both skippers needed a hypo for their nerves after battling this distance and finding themselves separated by only three seconds.

In the Sir John Nutting Cup Series, sailed simultaneously with the Lipton Cup Race, three races over a different course each day decides the winner. A poor last the first day, *Orn* came on to win the two remaining races and tie the series. In the sail-off between *Orn*

(*Continued on page 120*)

(Left) In the Eagle Class, *Orn*, owned by Dr. George Davis, won a long string of victories, including the class championship and the Sir John Nutting Cup series.

"Bob" Benedict's *Bagheera*, which won in the Cruising Division of the 1929 Mackinac Race and also in the yawl and schooner class of the annual race to Black Lake.

The Twakow

A Type of Craft Which Crowds the Harbor of Singapore

By WILLIAM MAXWELL BLAKE

THIS Chinese craft is the Cinderella of the port of Singapore, as at least two-thirds of the cargoes of this emporium of the East are handled by Twakows. Included in their cargoes are such staples as rubber, pepper, gambier, tin, dried fish, rattans, rice, patchonti, and incense. They are carriers of pilgrims on their way to Mecca, and of wild animals from Borneo and Sumatra, destined for the zoos of the Old and New Worlds.

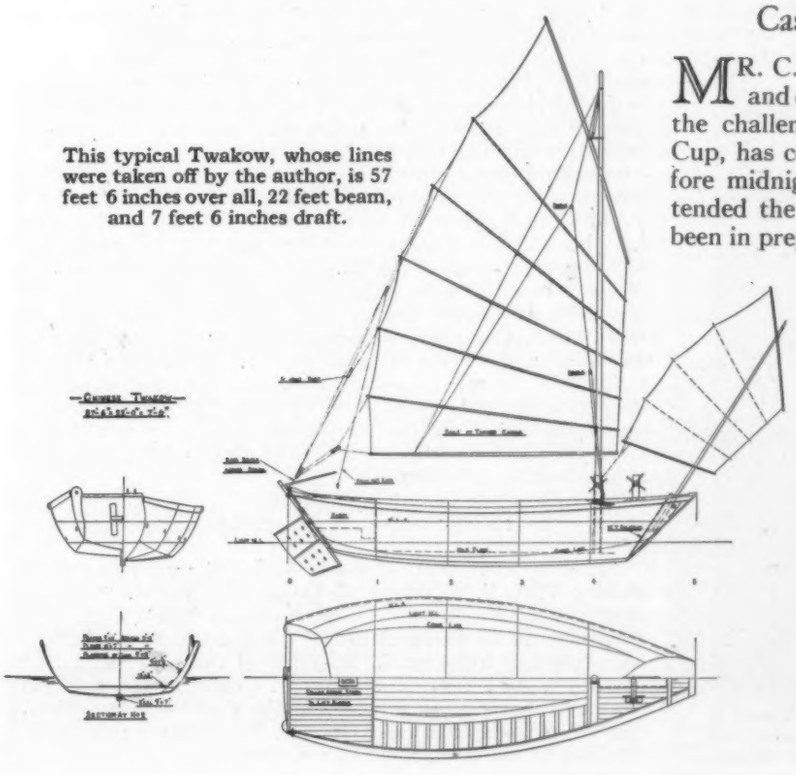
Each Twakow has three men, and those without sails are propelled by a long scull over the stern. The crews live on board the year round.

The Twakow drawn here is registered in Singapore, and is owned by an Hokien, Tcha Wai, by name. Her Taikong, named Tcha Giap, with the aid of two men, navigates his vessel around the Island of Singapore, and to the adjoining territories, generally carrying loads of timber to Batu Pahat and granite from Pulo Ubin.

Built in the Galang district, at a cost of about $2,000 (Straits), this Twakow is fifteen years old. The masts and spars are bintangore poles, and the sails are of canvas, tanned with cutch. Each spar is kept into the mast by a parrel, which, with the double toppinglifts, makes reefing gear unnecessary, as when lowered away the sail folds up like a concertina.

Every ocean-going steamer anchored in the outer roads of Singapore is the center of attachment for tiers of Twakows, and the din of winches, the babel of languages that would have put Babylon to shame, plus the exhortations of overheated junior officers taking tally, combine in a pæan to the foresight of Sir Stamford Raffles.

Two-thirds of the cargoes that pass through the great port of Singapore are said to be handled by Twakows.



This typical Twakow, whose lines were taken off by the author, is 57 feet 6 inches over all, 22 feet beam, and 7 feet 6 inches draft.

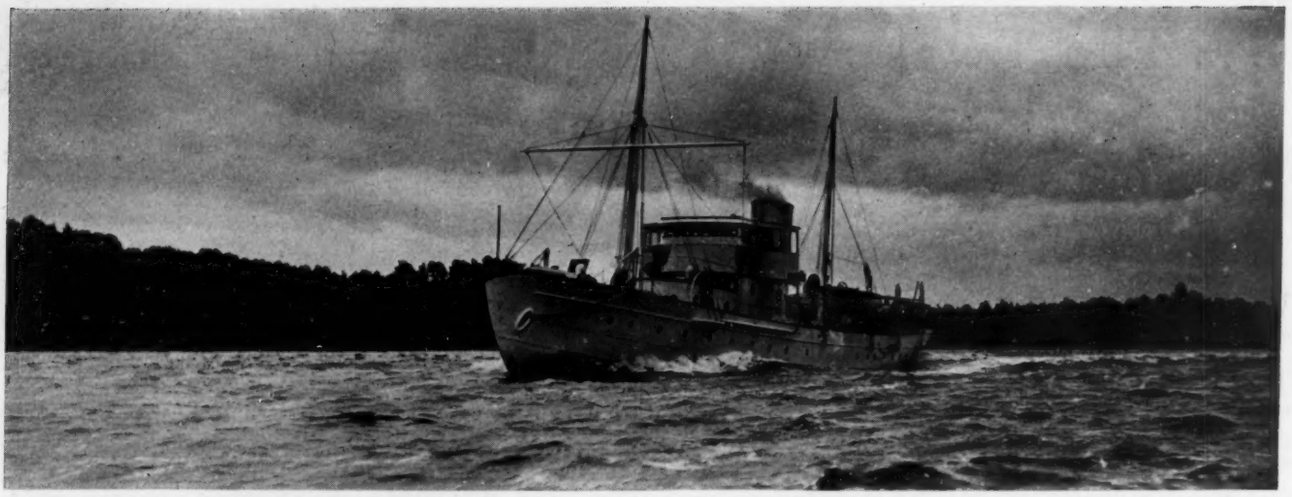
Casting the Keel of *Shamrock V*

MR. C. E. NICHOLSON, having finished his plans and designing of Sir Thomas Lipton's *Shamrock V*, the challenger for next year's race for the America's Cup, has commenced work in real earnest. Shortly before midnight on October 30th, the designer superintended the casting of the keel, the mold of which has been in preparation for some weeks. A gang of workmen surrounded the keel-mold and after three hours' work, in terrific heat, the keel was duly cast and the first practical step taken in the building of Sir Thomas' fifth challenger.

Great secrecy is being taken with the new *Shamrock*. It is an open secret, though, that both Sir Thomas and Mr. Charles Nicholson have the highest possible hope of "lifting the Cup" next September. Racing in an open class without time allowance should give the challenger a far better chance and she can now be built to Lloyd's scantling rules.

Shamrock V will, it is said, have a measurement of about 77 feet on the water line, and will be a Bermudian-rigged cutter.

A. T. L.



Paragon, **something unusual in power cruisers. Owned by Charles J. Davol, of Providence, *Paragon* was designed by A. Loring Swasey and was built this year at the Bath Iron Works. With plenty of sheer and moderate overhangs forward and aft, *Paragon* has proved herself a fine sea boat. She is 138 feet long over all, with 8½ feet draft, and power is provided by two Winton Diesel motors.**

The Month in Yachting

L. Y. R. A. Plans for 1930

MANY matters of importance on the Great Lakes were transacted at the annual meeting of the Lake Yacht Racing Association of Lake Ontario, held at the Toronto Military Institute, at Toronto, the latter part of October.

Not the least interesting of these was the announcement of Commodore George H. Gooderham, of the Royal Canadian Yacht Club, that he would give a perpetual challenge cup for the Eight-Metre Class on Lake Ontario. This will be offered in competition next year, and it will mark the advent of a new class of sailing yachts on the lake — the first to be built under the International Rule.

Commodore Gooderham also suggested the splitting of the entrants in the Freeman Cup Race into two divisions, one to be composed of cruising and the other of racing yachts. In accordance with his suggestion, he would give a cup for one of the divisions, while the Freeman Cup would remain for the other. Just which cup will be for which division will depend on the desire of the donor of the Freeman Cup, if the plan is followed.

Thalia, **a new Six-Metre designed by Sparkman & Stephens for L. G. Young. She made her appearance in October, and will be racing in this hot class next season.**

Racing rules and measurement rules of the North American Yacht Racing Union were adopted with a few minor changes to suit local conditions, and it was decided that the entrants in the new Eight-Metre Class will sail under the same rules as the other classes at the regatta.

The races for the Canada's Cup, for which the Royal Canadian Yacht Club has challenged this year in the Eight-Metre Class, had been scheduled for the week of July 28th, 1930, off the port of Rochester, the series to consist of the best three out of five races, but it now seems likely that this series will be moved forward to the second week in August and held August 11th to 15th, to accommodate other fixtures. Already there are three "Eights" building in preparation for this event, with a possibility of two or three more. The Royal Canadian Yacht Club is constructing two, from designs of Fife, of Scotland, and W. J. Roué, of Halifax. One is on the stocks at the shops of the club and the other is building at Oakville. It is said that a third may be built for this club and the best of the three chosen as challenger. From designs of Frank C. Paine, of Boston, there is being built in the shops of Lawley an "Eight" for the Rochester Yacht Club, the defender, which may have one or two more before the selection of a defender is made.

Hamilton, Ont., with the Royal Hamilton Yacht Club as host, is to be the scene of the 1930 regatta of the L. Y. R. A. To make it coincident with the British Empire Games, dates have been fixed for August 19th, 20th and 21st. It is planned to have the regatta follow the Canada's Cup Series, with the long-distance Freeman Cup Race between and starting across the lake from Rochester August 16th to finish at Hamilton, 115 miles away. Commodore Gooderham has suggested that the entire L. Y. R. A. fleet sail to Toronto from Hamilton and participate in the regatta of the Canadian National Exposition during the week of August 25th. Then the "R" picked to represent Lake Ontario in the Richardson Cup Series would go to Lake Michigan to defend the Great Lakes 20-rater championship title early in September.

Altogether, the layout is propitious for the greatest season of important racing events Lake Ontario has witnessed for many years.

All of the old officers of the L. Y. R. A., were reëlected, including T. A. E. World, of the Queen City Yacht Club, president; E. Austin Barnes, of the Crescent Yacht Club, vice-president; Blake Van Winckle, of the Queen City Yacht Club, secretary and treasurer. T. K. Wade of the R. C. Y. C., Mr. Barnes of the C. Y. C., and W. V. Castle, of the Rochester Yacht Club, are to be delegates to the Yacht Racing Union of the Great Lakes from Lake Ontario. Mr. Castle is to represent the lake on the Richardson Cup Committee.

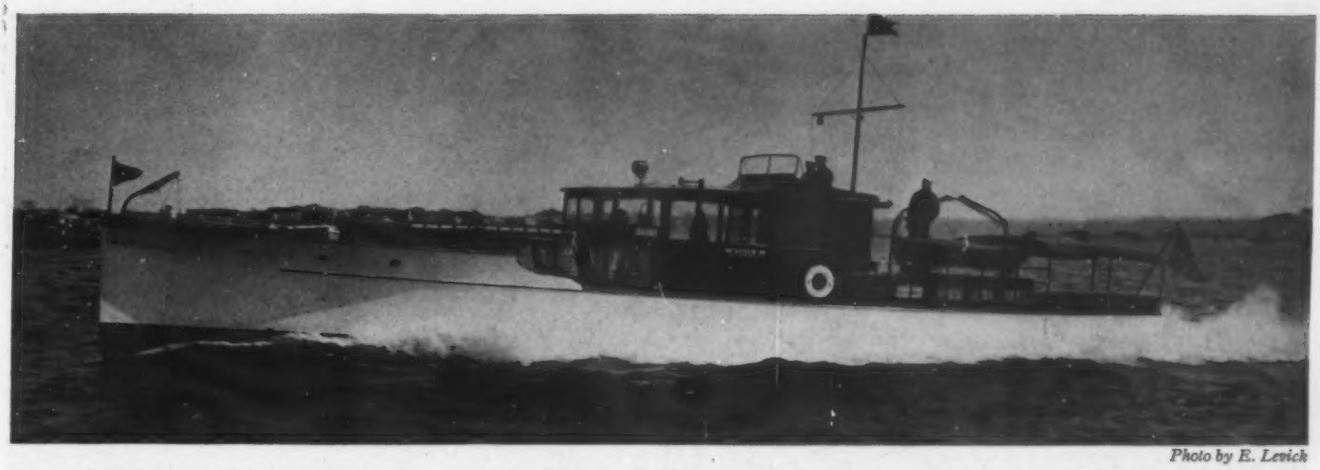


Photo by E. Levick

***Peacock III*, a new 72-foot express cruiser owned by Thomas C. Eastman, of New York, and designed and built by Luders Marine Construction Co., Stamford. With pleasing lines and a large enclosed deckhouse amidships, *Peacock III* is an exceedingly handsome craft, of more than usual speed. Two Wright Typhoon motors furnish the power.**

The A. P. B. A. Meeting

THE 1929 annual meeting of the American Power Boat Association, held late in October, with its subsidiary meetings, formed one of the most important series of gatherings in the history of motor boating. This was because of the tremendous strides made in the sport during the past 12 months. The multiplicity of regattas held in 1929 has been one of the manifestations of this progress, and the need for ten trained officials for future seasons, in place of one in former years, is evident.

The most important development of the year was the coöperation between the A. P. B. A., the M. V. P. B. A., and the N. O. A., forming the National Outboard Racing Commission, made up of representatives from all three organizations, to organize the outboard racing sport throughout the country by localities, providing for regional championship regattas and a national championship each autumn.

The separation of amateur and professional drivers in the outboard racing field is to be made effective in the 1930 rules, by placing all racing drivers who maintain commercial relations with the trade in any of its branches, in Division III, regardless of the number of races they have run. This move is hailed with much enthusiasm by the yachting fraternity generally, as it eliminates many sources of friction in the sport.

Because of the many classes competing, it was decided to limit the distances over which records would be recognized. For a Class A or B competition record, the distance must be 5 miles; for Classes C, D and E, 10 miles. A record can now be made on a course only one mile in length, of any shape, as long as all conditions of accuracy in length and timing are met. The 2½-mile standard course remains, but the 3-mile course was abolished. Mile trials, of course, also remain.

The Racing Commission also plans to put a definite minimum limit on the weight of hulls, which was approved by the Council, and the Commission is now gathering material from which to formulate the rule. The tentative figures are: For Class A, 115 pounds; for Classes B and C, 175 pounds; and for Classes D and E, 225 pounds.

In the Gold Cup Rules the total weight of the complete challenge boat, including engine, will be taken in 1930 as 2,750 pounds, instead of the former figure of 2,000 pounds for the hull. This includes everything except fuel, oil and the crew.

The official cruiser handicap adopted last year has proved highly successful in the opinion of cruiser men, and will stand in its present form. The Past Performance Handicap rule, however, has developed a number of glaring faults in the three years of its existence, and a multitude of suggestions were received by the Racing Commission. The net result has been that the permanent certificates have been done away with and in 1930 all cruisers racing under the rule will race against the owners' statement of speed, and all boats will be penalized alike for exceeding their scheduled time. This action eliminates the past performance element in the formula and is done to gather data for remaking the rule for future seasons. The rule against riding on the stern wave of a rival boat in the race was also abolished. The maximum length of cruisers eligible to compete for the Handicap Cruiser Championship of North America was raised from 45 to 50 feet. A committee was appointed to study the James Craig Trophy rules and conditions which have operated to keep this solid gold trophy out of competition.

A new class for 325 cubic inch hydroplanes has been created and the Detroit News Trophy has been transferred to this new contest.

Peoria Stages First National Outboard Championship Regatta

WITH the greatest number of entries ever received for a power boat regatta on hand, the first national championship races of the National Outboard Association were staged with great success on October 12th and 13th at Peoria, Ill.

Four new American records were established by the racers — two in the mile trials for speed and two in competition — and it is safe to say that had the water been in good condition on both days of the regatta, more records would have gone by the board.

One hundred and fifty-two entries were received for the various races in Classes A, B, C, D and E, and all were on hand Saturday morning to take part in the competitive events. The entrants swarmed into the grounds of the Illinois Valley Country Club from all points of the compass, and the number of pilots who arrived in automobiles with their complete racing equipment loaded aboard, totalled well over 80. Many of the

What the recent heavy gales on Lake Michigan did to the racing fleet of the Chicago Yacht Club still in the water at Lincoln Park.

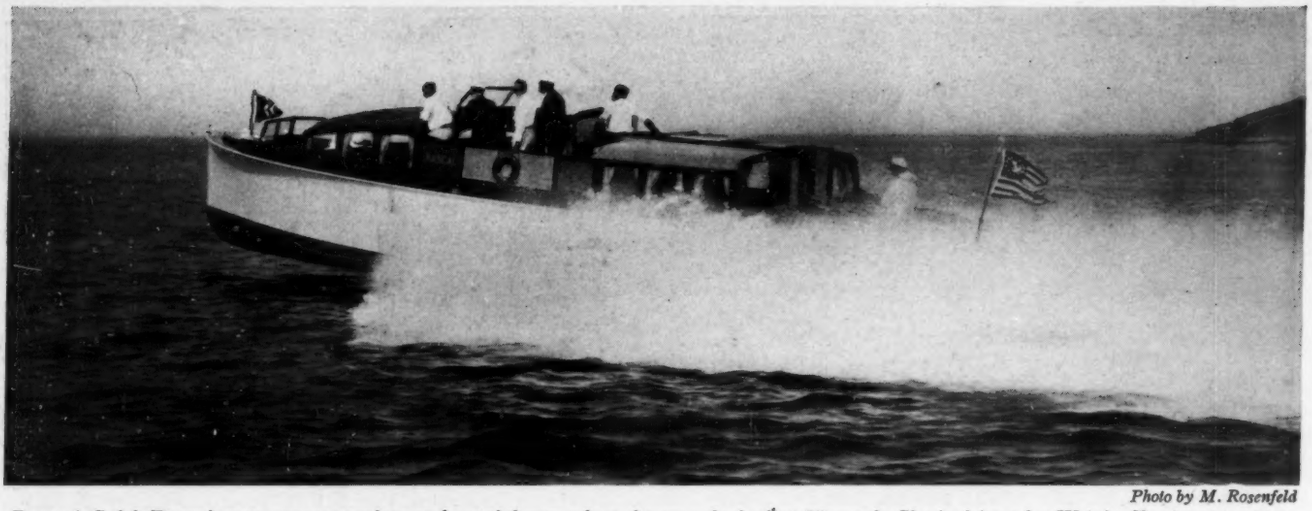


Photo by M. Rosenfeld

***Rascal,* Caleb Bragg's new express cruiser on her trial run, when she was clocked at 57 m.p.h. She is driven by Wright Typhoon motors.**

pilots came by this means from points as distant as California and Florida.

The cream of the country's outboard pilots were entered at Peoria and the winners can safely say that they are the national champions in the various classes in which they were entered. By far the greatest interest was shown in Classes B, C, and D and, of course, those classes attracted the greatest number of entrants.

The races were held on a 2½-mile — government surveyed — water track on Peoria Lake, which the National Race Commissioners who were on hand — George O. Hoehn of Chicago, Charles F. Chapman of New York and A. T. Griffith of Peoria — declared was an almost perfect spot for outboard racing. The officials of the Illinois Valley Yacht Club, under Commodore James F. Lacey, were in charge of the events.

On the first day seven boats got away in Class A in choppy going, Douglas Haskins leading Arthur Sutherland across the line by the scant margin of two seconds, with David Downing third. Haskins' time was 24.33 m.p.h. On the following day, with smoother water conditions, Haskins again won, with Sutherland and Downing once more second and third, Haskins this time making 25.19 m.p.h. Haskins thus clinched the national title, using a Porteus boat and Lockwood engine. Sutherland used a Lockwood-equipped Cute Craft, while Downing used a craft of his own make with another Lockwood motor.

No less than 44 boats faced the starter the first day in the Class B event, providing exceptionally close and exciting competition all around the course, with but two upsets, a tribute to the expert driving of all the contestants. Bill Frey won, at the rate of 35.23 m.p.h., with George Cost second and Julius Herbst third. Frey used a Century boat, Cost a Boyd-Martin craft, and Herbst one of his own make. All used Johnson motors.

The second day saw a new record set up for Class B when H. G. Ferguson dashed across the finish line in the remarkable time of 40.43 m.p.h. Gene Pickard was close behind, while Herbst again annexed a third. The totals of the two heats showed Ferguson as national champion, with Herbst second and Frey third. Ferguson used an Elsinore boat and Johnson motor, and Pickard a Herbst boat and Johnson motor.

Carl Koeffler, in an Indian Lake boat with an Evinrude motor, was crowned national champion in Class C after taking second place on the first day and winning the second day's event. T. J. Millikin, who won on the first day with a Century boat and Evinrude motor, took second in the finals, and was followed by Glen Hafer. Forty-three pilots vied for honors in this class.

Class D attracted another fast field of 44 starters, and provided the closest and most exciting racing of the regatta. The first heat went to Dick Upsall in a Century boat with Johnson motor, at a rate of 42.33 m.p.h. A. M. Amsler was a close second and Ben Coler third, Amsler using an Amsler boat and Coler a Century. Both used Johnson motors.

The second heat saw an American record for the class in competition made when Marshall Eldridge drove a dashing race at the rate of 44.65 m.p.h., with Dick Upsal and H. G. Ferguson close behind, all using Johnson motors. The total times for the two heats showed Upsal national champion by the scant margin of two seconds over Eldridge.

F. E. Ludolph was crowned a national champion of Class E after he ran away with both heats of this event. Jake Lemm and Eldon Travis took second and third places respectively in the first heat, while Eskel Carlson and E. J. Lillie did the same thing in the second heat, and also took second and third places for the championship. All three used Elto motors.

Championship Standings, Long Island Sound

Class M

Avatar	.725
Windward	.672
Istalena	.582
Simba	.508
Barbara	.500
Ibis	.485

12-Meter Class (D. N. Q.)

Tycoon	.715*
Iris	.688
Isolde	.562

N. Y. Y. C. Forty-Foot Class

Mistral	.729
Shawara	.611
Pampero	.571
Chinook	.556
Rowdy	.493
Typhoon	.478

Larchmont "O" Class

Mirage	.776
Grey Dawn	.717
Celeritas	.675
Varuna	.318

10-Meter Class

Narcissus	.711
Valencia	.587
Nachvak	.566
Synthetic	.532
Howdy	.530
Branta	.481
Blazing Star	.457

N. Y. Y. C. Thirty-Foot Class

Oriole	.697
Mermaid	.656
Interlude	.578
Banzai	.557
Phryne	.533
Atair	.485
Alera	.362

*Did not qualify.

8-Meter Class, Open

Priscilla III	.797
Gypsy	.747
Muffet	.712
Thisbe	.597
Mab	.576
Sally	.505
Sonny	.437
Marin	.366
Rangoon	.349

8-Meter Class, One Design

Loke	.677
Nymph	.645
Silhouette II	.643
Ace II	.562
Alala	.446
Gitana	.460

Q Class

Scapa III	.756
Spindrift	.711
Hawk	.596

Seawanhaka Schooner Class

Mariann	.780
Flytie	.741
Nadji	.729
Nokomis	.553
Flying Fish	.440
Daiquiri	.333

Handicap Division 1 (D. N. Q.)

Rissa	.778*
Chanson	.750*
Young Miss	.600*
Sheerwater II	.500*
Sagola	.250*

20-Rating Class

Bob-Kat	.739
Doress	.668
Yankee	.588
Puffin	.479
Astrild	.424

* Did not qualify.

HANDICAP CLASS, DIVISION 2 (D. N. Q.)

Acadian	.889*
Ethel II	.413*

6-METER CLASS

Lucie	.817†
Natka	.658
Roulette II	.552
Lea	.529
Redhead	.468
Romany	.333
Hawk	.294

VICTORY CLASS

Black Jack	.823
Reveille	.697
Blue Jacket	.644
Vindictive	.638
Gopher	.630
Flapper	.592
Avanti	.557
Carry On	.471
Nike	.442
Red Arrow	.408
Navigator	.287
Madame	.208

CLASS S (D. N. Q.)

Felicity	.840*
Surinam	.775*

SOUND INTER-CLUB CLASS

Aileen	.828
Ermar	.803
Bozo	.798
Jane	.736
Blue Streak	.678
Bobbill	.624
Skylark	.550
Anne	.548
Tangent	.526
Daphne	.523
Shorty II	.483
Bandit	.481
Opal II	.447
Diane	.414
Ariel	.414
Alberta	.403
Sparkle	.387
Poppy	.368
Ahab	.305
Arclay	.297
Chicks	.295
Wild Cat	.295
Jester	.295
Sayonara	.246

ATLANTIC COAST ONE-DESIGN CLASS

Cynosure	.817
The Flash	.698

* Did not qualify
† First.

Whoopee	.570
Janitra	.498
Budge	.473
Weetoy	.455
Marianna	.448
Playtoy	.439
Noiram	.436
Shoudy	.409
Priscilla S.	.394
Betsybly	.376
Iris	.330
Twinkle	.289
Viking II	.160

SOUND JR. CLASS (D. N. Q.)

Sabalo	.583*
Decima	.579*

STAR CLASS

Little Bear	.835
Tempe II	.817
Irex	.781
Catherine	.755
Joy	.736
Orion	.723
Iscyra II	.640
Bootes	.638*
Little Dipper	.633
Lout	.628
Bandit	.588
Shinnecock	.536
Vesta	.516
Themis	.504
Sheelagh	.503
Mary Anna	.458
Ursa Minor	.441
Andiamo	.431*
Myra	.376
IO	.376
Be Bright	.354
Altair	.336
Chanticleer	.284
Firefly	.283
Stubby	.248
Tehe	.136

HANDICAP CLASS, DIVISION 3

Black Devil	.732
Ogeemah	.667
Suzette	.530
Runaway Girl	.381

STAMFORD ONE-DESIGN CLASS (D. N. Q.)

Hawk	.742*
Little Hope	.536*

WEE SCOT CLASS

Orca	.903
Anti-Femina	.807
Erse	.467
Angus	.389
Polara	.375
Ian	.111

The 90-foot schooner *Wander Bird*, formerly a German pilot boat, in which Warwick Tompkins is making a Transatlantic passage from France to Miami. She was last reported at the Canary Islands, late in October.

Schooner *Niña* being lifted to the deck of steamer *Minnetonka* for shipment to the United States after her Atlantic passage of 1928. This picture gives a good view of her underbody.

A Transatlantic Race for 1931

ANNOUNCEMENT has just been made by the Cruising Club of America, and the Ocean Racing Club of Great Britain, of a Transatlantic race for the summer of 1931, the course to be from Sandy Hook to Plymouth, England. The race will be open to the yachts of any country, and will be for boats of moderate size, that is from about 45 feet to 80 feet in over all length. The starting date, while not definitely fixed, will probably be Saturday, June 27th, as during the first half of July one is apt to find the most favorable conditionson the North Atlantic.

The Cruising Club and the Ocean Racing Club have been considering this race for several years and sounding out the sentiment of the racing men. The full conditions have not yet been worked out, but committees of the two clubs are preparing them at the present time, and they will be announced shortly. There is no Bermuda Race scheduled for 1931, and the race should thus attract many of those owners who sail in that event. Already tentative entries of some ten or a dozen yachts have been received. With yachts of the size contemplated for the race, owners may ship them home by steamer if they do not desire to take the time necessary to sail them back. In the race of 1928, every yacht in the smaller class was thus shipped home.

Starting on the date selected, the yachts should arrive in ample time to refit and sail in the Fastnet Race of the Ocean Racing Club, and to be present during the racing at Cowes Week, while it is also probable that there will be a race from the Channel to some port in Spain or France, late in August.

Yachts eligible for the Bermuda or Fastnet Races will be eligible also for this event, and with the number of new boats now building for the former event next year, it looks as if a good sized fleet will be sent off from Sandy Hook in 1931.

That Jeffrey's Ledge Race Course

Editor, YACHTING:

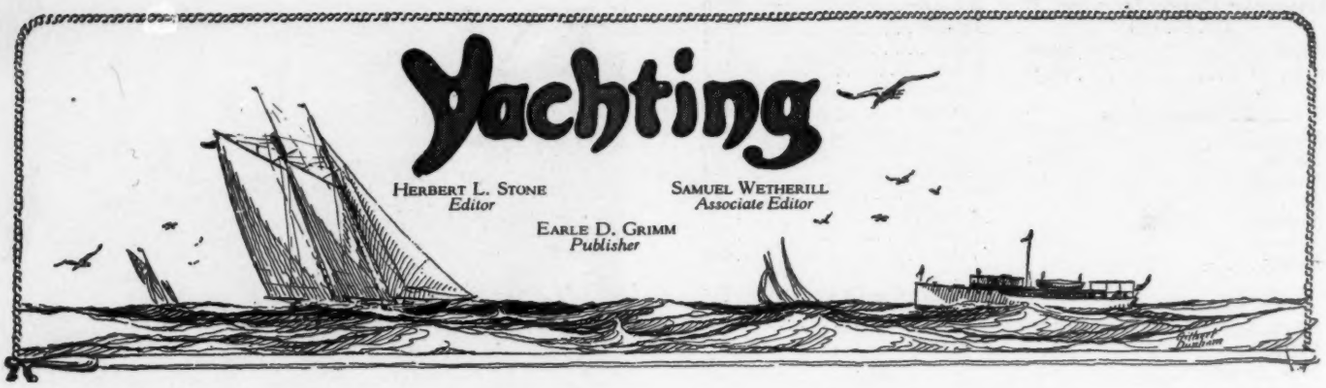
IN your November issue Cap Stan questions the propriety of using a whistling buoy at the end of a 50-mile leg for a turning mark in the Jeffrey's Ledge Race. Inasmuch as many of us regard the use of this turning mark as the prime reason for the success of the race, I think it is in order to tell why we use it.

The Jeffrey's Ledge Race is run solely for cruising men. Every effort is made to approximate closely actual cruising conditions, and to make it a race in which the ability of the captain, navigator, and crew will be the most important factors.

There is nothing freakish about a 50-mile northerly course to a whistling buoy in the Gulf of Maine. Prevailing winds are southerly; Seguin and Monhegan are famous for their heavy fogs. It is the spirit of the Jeffrey's Ledge Race that a man who objects to searching for a whistle under such circumstances is not entitled to win a cruising man's race.

The Jeffrey's Ledge Race does not necessarily go to the fastest boat, and we are satisfied that this feature should be, perhaps, peculiar to this race. Examination of logs of boats which have raced, and conversation with skippers, invariably shows that the winning boats have been well handled, while the losing crews have appreciated their mistakes and learned valuable lessons.

W. H. COOLIDGE.



Editorial

Looking Backward at the Past Season

IT is usually profitable, as the year draws to a close, to look backward over the preceding twelve months, and, as it were, get a perspective of the season just past and its influence on the sport.

The year 1929 saw yachting at full flood. Never before has the sport been as popular; at no time in the past have so many persons turned to the water for recreation. In no previous twelve months have as many new boats been built and set afloat; never have so many new owners been inducted into yachting. It has been a most prosperous year for all concerned. And while the greatest gains have been made in the power boat fleet, which is growing at a remarkable pace, the interest in sail has been no less pronounced or healthy.

From a racing angle the past season has also been one of the best and most constructive in many years. Not the least healthy sign for the future is the interest in racing shown by the youngsters, girls as well as boys, and the skill which they are showing in the finer points of boat handling. In no less than three important international events, the crews handling the yachts representing this country were largely, if not entirely, composed of those who had not reached their majority. Truly, the junior movement is bearing fruit.

There is no doubt that the addition of four new sloops to the "M" Class has done much to stimulate interest in large boat racing that speaks well for the future, and has given our yacht designers much needed experience that should prove of advantage to them in meeting the challenge for the America's Cup next year. By reason of the challenge for the Seawanhaka Cup we built up a fine fleet of open "Eights" on Long Island Sound that should prove popular and should grow. The wisdom of taking on the International Rule for the smaller classes has been proved by the number of such international events it has made possible during the past few years. There have been also numerous one-design classes for junior competition built during the year that are proving their worth, while at Marblehead the new Marblehead-Buzzard's Bay Class brought about intersectional racing of great interest. We understand that this class proved so popular that a number of new boats are being built to it for next season. It is still too early to predict the future for the European square-metre rule classes in the United States. Two international events sailed under this rule were interesting, but the boats themselves do not yet seem to have aroused great or widespread enthusiasm.

"Sixes" to Have Busy Season

AFTER considerable uncertainty and much backing and filling, it is now certain that we shall see a series of races off Oyster Bay next September for the British-American Cup. The match as originally scheduled was due to be sailed this year, the first series having been held on the Clyde in 1928. Then along came the challenge for the America's Cup, and it looked as if this might crowd out the series between the smaller boats and be a case of too much international competition. The Seawanhaka officers then offered the British yachtsmen a chance to postpone the race until 1931 if they desired. But it appears that the British were as keen to race as ever and they decided to come — America's Cup Race or no America's Cup Race — and the series is definitely on, the dates to be moved ahead to the first week in September instead of the third week, so as not to conflict with the big event.

The match will be sailed in "Sixes," and this class is thus due for a lively season. There are still plenty of good "Sixes" here, but a number more will be built. Four boats are ordered from Sparkman & Stephens, one for L. G. Young, another for John K. Roosevelt, and two for use on Lake Michigan, O. W. Johnson and J. P. Wilson being the owners. Bob Bavier will be racing in the class, as he has ordered a "Six" from Frank C. Paine of Boston. There will be several more, including at least one from the board of C. Sherman Hoyt.

The America's Cup Yachts

SPEAKING of the America's Cup challenge, work is proceeding merrily on the four defenders we are building for various syndicates, and all of the four are in various stages of construction. Considerable secrecy is being maintained as to details of the boats, but rumor has it that the water line length of the four will vary from 80 to nearly 87 feet, which is quite a wide range. It is said that the Burgess boat for the Vanderbilt syndicate is at the lower end of this scale, and the Paine boat, for the Boston syndicate, at the upper end, with the others in between. Rumor also has it that the challenger will be shorter than any of these, some 78 feet. If this is so, we shall have a chance to find out something about length-sail area ratio before the summer is over. All of Sir Thomas' eggs will be in one basket, while we have four boats to select from. Which should prove an advantage — and yet you never can tell. Anyway, the season's racing in Class J will be quite an eyeful next summer.

In the World of Yachting

FRANK L. ANTHONY

NO list of those who have played a prominent part in the promotion of organized yachting, either past or present, would be complete without especial mention of Frank L. Anthony, No. 1 on the membership list of the Larchmont Yacht Club.

Next year will mark the fiftieth anniversary of the founding of this famous racing organization. The occasion will be marked by appropriate ceremonies, and it is gratifying to note that Frank L. Anthony, one of the original founders who helped launch the club on its long and successful career, is still on deck and taking an active part in its affairs.

The records show that the Larchmont Yacht Club was organized in June, 1880, as the outcome of a race held on Decoration Day of that year. Among the founders who were prominent in racing on the Sound in subsequent years may be mentioned Frank Anthony, A. Bryan Alley and William S. Alley, W. C. France, Fred W. and James L. Flint, Loring Lothrop and Charles E. Jenkins. W. C. France was the first commodore and Frank Anthony the first secretary. In the club fleet that first year, consisting of only a handful of yachts, was the catboat "Vivid," owned by Frank Anthony. By the next year, 1881, the membership had gone to 74, according to the club book, published for the first time. From that time on, the Larchmont Yacht Club grew steadily under the wise guidance of the founders and early members.

Frank Anthony was always interested in racing and sailed in most of the early regattas of the club, either in his own boat or as a member of the crew of some of the other yachts. Frequently he was to be found on board Fred Flint's sloop "Nymph," and, again, he was one of the "Oriva's" crew in the many races sailed by that yacht. Now, nearly fifty years after those early regattas, nearly every race day at Larchmont finds Frank Anthony on the committee boat, lending a hand.

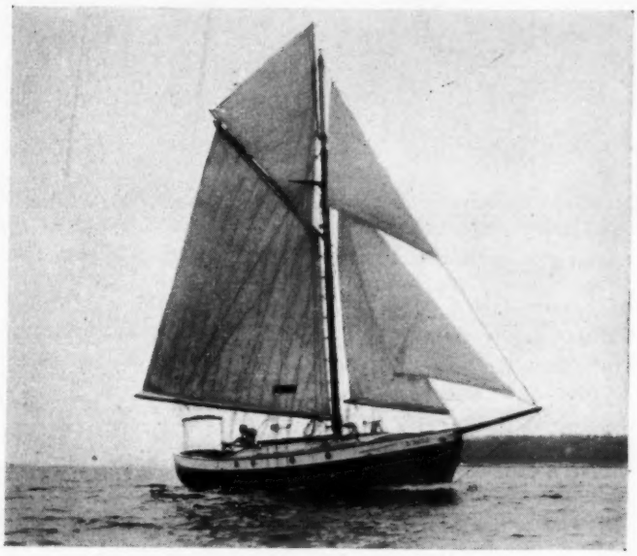
While, officially, he is chairman of the Library Committee, unofficially, Frank Anthony is a member of almost every committee of the club, and his advice is sought on every matter of policy and importance. He has not only seen the club grow from a small organization of only a few members, with dues of ten dollars, to the most important racing club on the Sound, but he has played a helpful and important part in that growth. His should be the satisfaction of seeing the seeds he helped to sow ripen to full fruition.

Penguin, a Single-Handed Auxiliary Cutter

By JOHN SEWALL

PENGUIN was designed for me by John G. Hanna, after years of discussion. We had come into pretty good agreement as to what was what about boats, and I have been from the start more than satisfied with what Hanna did for me. It was our idea that a cruising boat should be a good boat to run and reach, and that windward ability might well be sacrificed to this end. Anyone who has read Slade Dale's *Postscript* articles knows full well that a small boat cannot get much of anywhere on the wind, anyhow; and anyone who has owned a deep keel boat knows the advantages of the shallower types, which seem to be the best for everything except going dead into the eye of the wind. Furthermore, a great many (I will not say all) of those who have steered a wildly-sheering craft down the wind will be interested in a boat that is easy on the helmsman.

Penguin is a real single-hander, and is 27 feet four inches over all, 9 feet beam, and but 3 feet draft, with a total of 500 square feet of sail in her cutter rig. Her lines are a refinement of Captain Slocum's celebrated *Spray*. This is certainly a proven model, and one which offers the advantages I have mentioned above. So Hanna started with *Spray*, and there can be no question that he refined her, for the average observer would scarcely recognize this neat outfit as a child of the good but homely *Spray*. *Penguin* presents no unpleasant curves to the eye, viewed either in or out of the water.



Penguin **"stepping out" in a moderate breeze.**

After using her for a season, it seems to me that her performance is above reproach, by which I mean that there are few, if any, mistakes in her design. For every fault there is a commensurate gain; and if you had more of one quality you would have less of another. I shall try to outline below just what her good points are, which is, I suppose, another way of telling what qualities I consider most important in a cruising boat.

In the first place, she draws but three feet. This permits one to go into floats, to anchor in quieter water, to navigate where deep draft is a menace. Furthermore, it makes for easy motion in rough water, a quality which is in this case also increased by the heaviest practicable construction. While shallow, the keel is long, and the actual area of lateral plane is large. This makes *Penguin* go to windward in a perfectly satisfactory manner, all things considered; and it makes her steer well under all conditions. It is possible for one to leave the helm for almost any length of time, while the boat goes charging on. *Penguin* carries her beam well out fore and aft, giving her a long floor to run on. You need this off the wind, you need it in rough water, and you need it under power.

Speaking of going under power, you will note that *Penguin's* stern is not of the duck tail variety, but sits easily on the surface. The result is an unusually good performance with a ridiculously small engine: we installed the compact ten-horse Doman Bull Dog, the shortest ten-horse on the market, and we get a full six knots under power. More surprising than this is the fact that the tiny engine will drive the boat dead into a head wind and sea, with comparatively little loss of speed. *Penguin* carries 1500 pounds of iron on her keel, which gives her that fundamental, ultimate stability one would not care to be without.

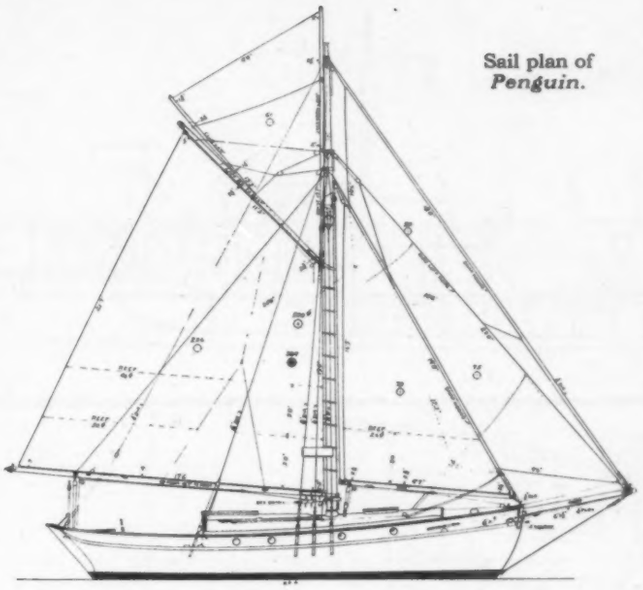
Because of the long floor and sweetly modeled lines, she heels in a different manner from most short, wide, shallow boats; there is no "give up" point, there is not the slightest "lee bilge shimmy." In fact, while exceptionally stiff, her stability takes hold smoothly and gently. Her running and reaching is all that I had hoped, and with her 500 square feet of sail, she is decidedly not to be confused with a floating island.

The rig is the true cutter, with mast two-fifths of the water line length from the bow. This is a handsome rig, and permits large areas to be set with the greatest possible compactness and convenience. On so small a boat, many people would prefer to increase the hoist, and eliminate the topsails, but the ease with which they can be taken in is something to think about. The topsails do not fight, but come down quite like a fisherman's staysail on a schooner. After once getting accustomed to them, I do not care to change. In regard to the rig, I should like to call attention to the completeness and refinement of detail. The sail and rigging plan might well be filed away for reference, for to equal it would take no end of thought and care, and there seems little chance of bettering it.

Another advantage of the long floor is the room it gives inside. This is, to most people who have come aboard, the most impressive feature of *Penguin*. It is enhanced by the crowned deck, widely used on larger boats because of its structural strength, its handsome appearance, and the fact that it is permanently watertight. On a single-hander, however, it is even more to be recommended, since it offers the only legitimate way of getting sitting headroom over the bunks.

The accommodations have worked out to be even more roomy than the plans indicate. In the after cabin, there is the galley, large and accessible, and a quarter bunk of full size. The seat back of this bunk hinges up to form a chart table, another comment-attracting feature. The galley stove has an Oliver kerosene burner, a device which permits one to use the genial Shipmate type of stove, and yet to have the convenience of quick starting and stopping of heat. In the middle of the boat are the tanks, gas on one side, water on the other. Each of these

holds 75 gallons, and their position is such that the trim is unaffected as they gradually empty. The main cabin forward is a delightful place, finished in varnish and cream color. It sports a noble cabin table, so large that six may eat their dinner there. Farthest forward is an enclosed toilet, opening into the chain locker. This is a large amount of room for so small a boat, and the two cabins permit one to have that strange thing called "privacy" by some, and "decency" by others, but apparently quite desirable. However ample the accommodations are, there is no cheating; the room is really there, cleverly used, to be sure, but there are none of the tricks that look good on paper and break one's heart in actuality.



Sail plan of *Penguin*.

The thing I wanted most of all on this boat was ventilation. On other boats without separate engine rooms, I found it impossible to live below while the engine was running. After trying other things, Hanna concluded that forced draft alone would do the trick to my satisfaction. We have installed an electric fan under a stack which is located at the northeast corner of the engine compartment. This device works perfectly, and pumps out absolutely all the gases. I hope never to be without one again. The engine itself is completely shut off from the cabin behind doors and a removable box, sufficiently airtight to direct the gases into the fan rather than the cabin. With box removed and doors open, it is possible for one to get at any part of the engine with far more than the usual convenience.

Much attention was given to the engine installation by both owner and designer. In these days, people know more about the installation of marine engines than they used to, but one feature of this one is worthy of comment. I refer to the exhaust, which on *Penguin* is installed according to the system used by the North Sea

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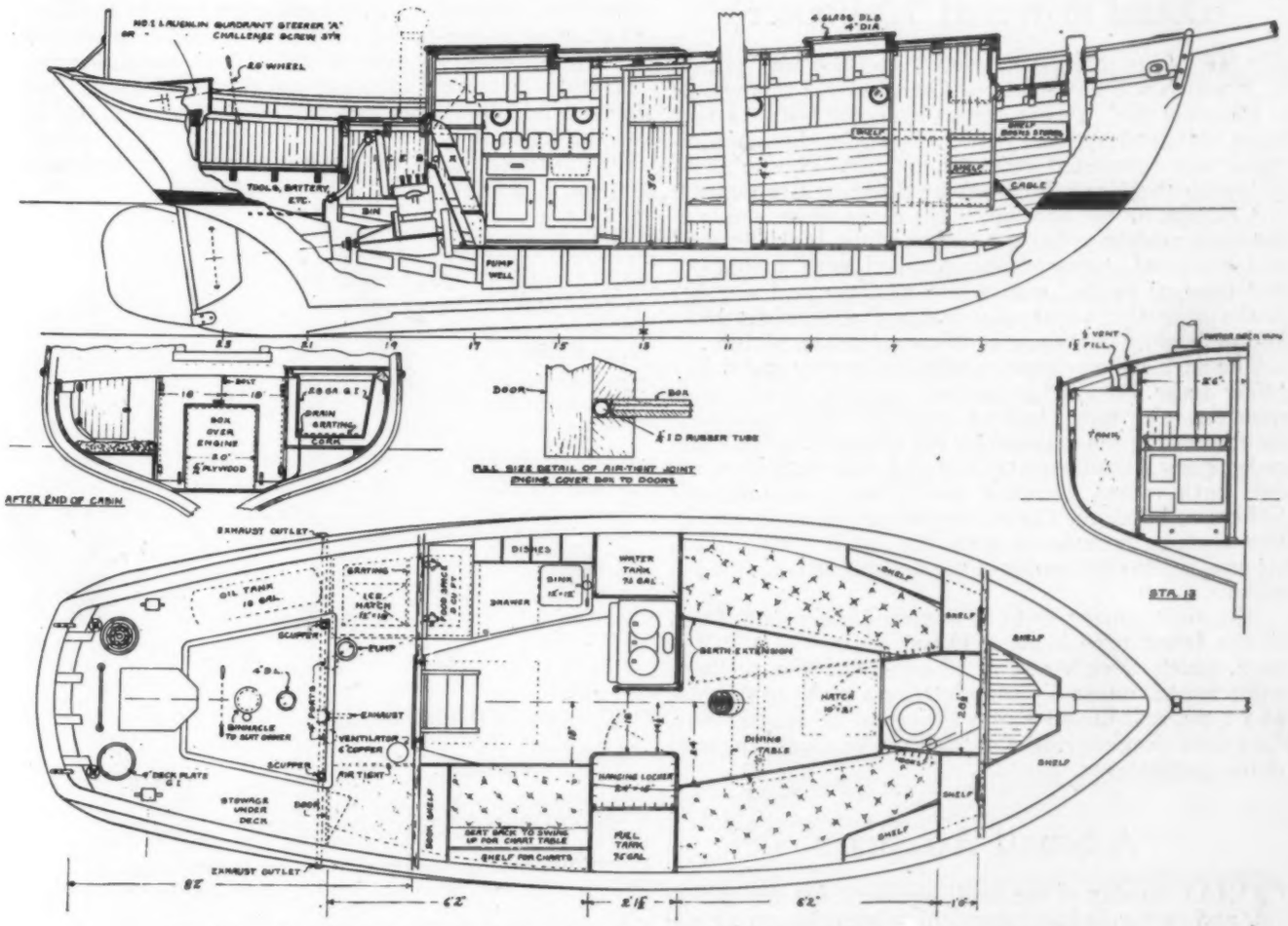
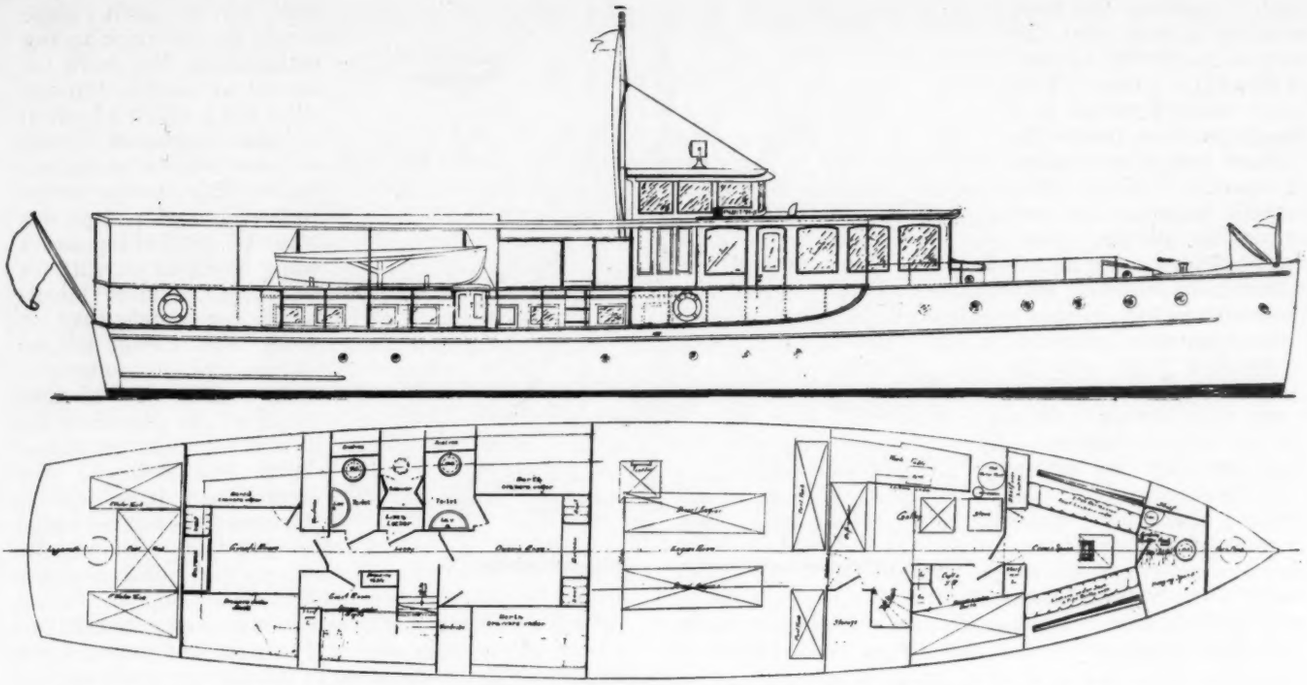


The inboard profile and accommodation plan give a good idea of *Penguin's* well-planned interior.



Outboard profile and interior accommodation plan of *Phantom III*, designed by Henry C. Grebe & Co., Inc.

Phantom III — A Twin Screw, Diesel-Powered 70-Footer

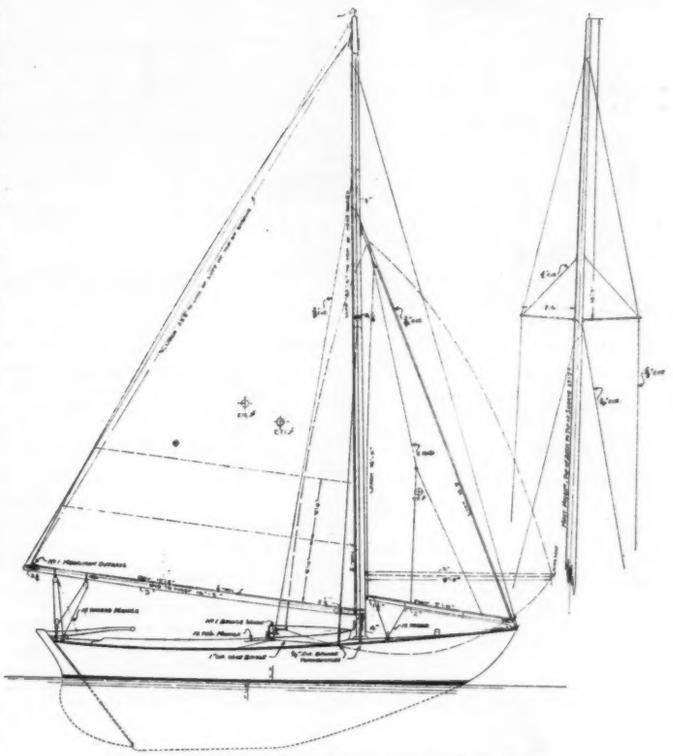
ONE of the handsome new Diesel-powered yachts which will be seen in southern waters this winter is *Phantom III*, a twin screw 70-footer with 14 feet beam, designed by Henry C. Grebe & Co., Inc., of Chicago, and completed recently for Mr. Thorne Donnelley by the Great Lakes Boat Building Corporation of Chicago. As the accompanying plans show, she is of the most modern type, and is beautifully built, finished and equipped, being double-planked with mahogany and finished bright, with white awnings and weather cloths presenting a sharp contrast, and with bright decks and mahogany outside trim to complete the picture.

The deck saloon connects with the pantry and galley below decks. Forward of the latter are the crew's ample quarters, with toilet, lockers, etc. The engine compartment amidships is followed by the owner's double stateroom, guests' double stateroom and a single stateroom, two bath rooms, bureaus, wardrobes, and numerous lockers and shelves. The staterooms are done in attractive tints to harmonize with the interior decoration scheme, while the interior of the deckhouse is finished in walnut.

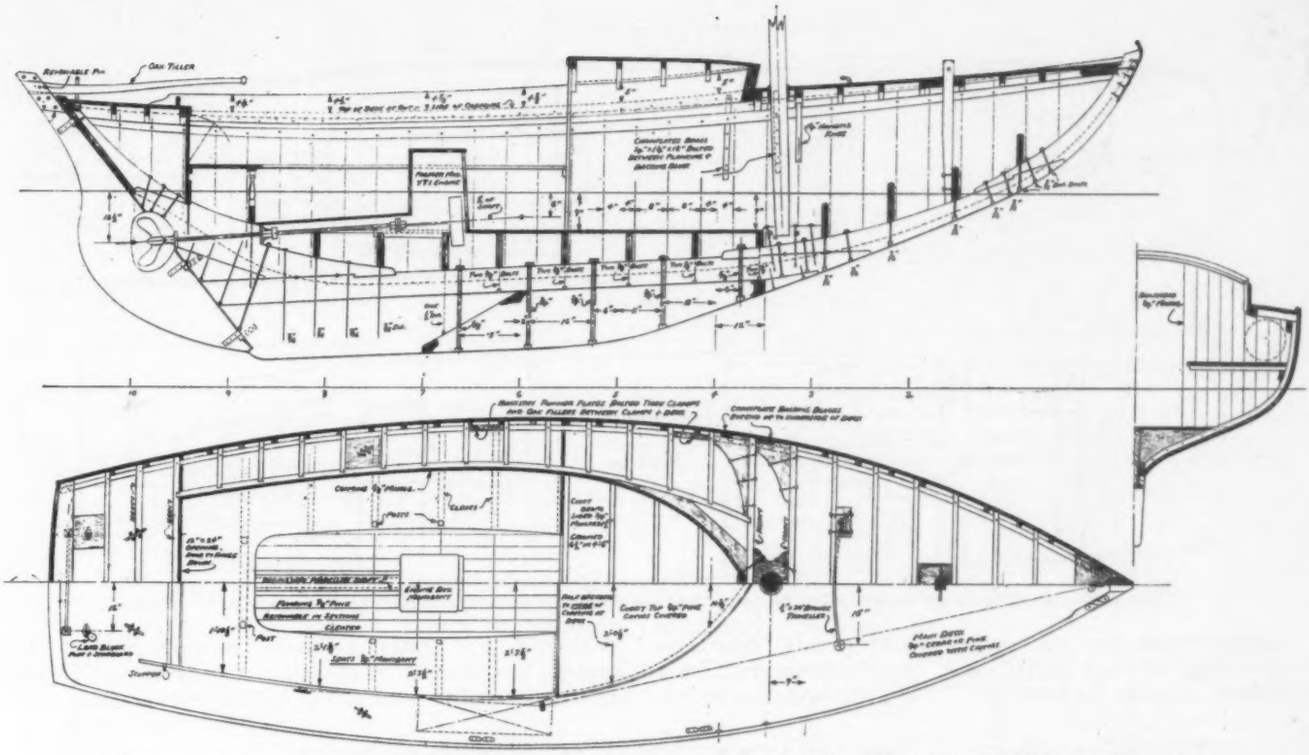
The main power plant of *Phantom III* consists of two of the latest type Winton Diesel engines of 150 h.p. each, which drive her at an 18-mile clip. The auxiliary equipment is unusually complete for a yacht of this size and type, and includes two Universal generating sets, American Engineering Co. electric windlass, Kolster radio compass, etc.

A Small Auxiliary

THAT the day of the small auxiliary, for day sailing and racing, is fast approaching is evidenced by the increasing number of designs of this type of boat which are beginning to crop up. The latest of these has been turned out by John G. Alden for Philip B. Smith, of Hamilton, Bermuda, who is having her built in the hope of starting a one-design class of able and comfortable little knockabouts which are plenty fast enough for racing and which are sure to get you there and back, wind or no wind. This little craft is 22′ 4″ long over all, 18′ 3″ on the water line, 6′ 9″ beam and draws 3′ 5″ of water. The Marconi rig of 270 square feet will be decidedly



Sail plan of the small Alden-designed auxiliary.



The above plans and section give a good idea of what a snappy little craft the Alden-designed 22-foot auxiliary is.

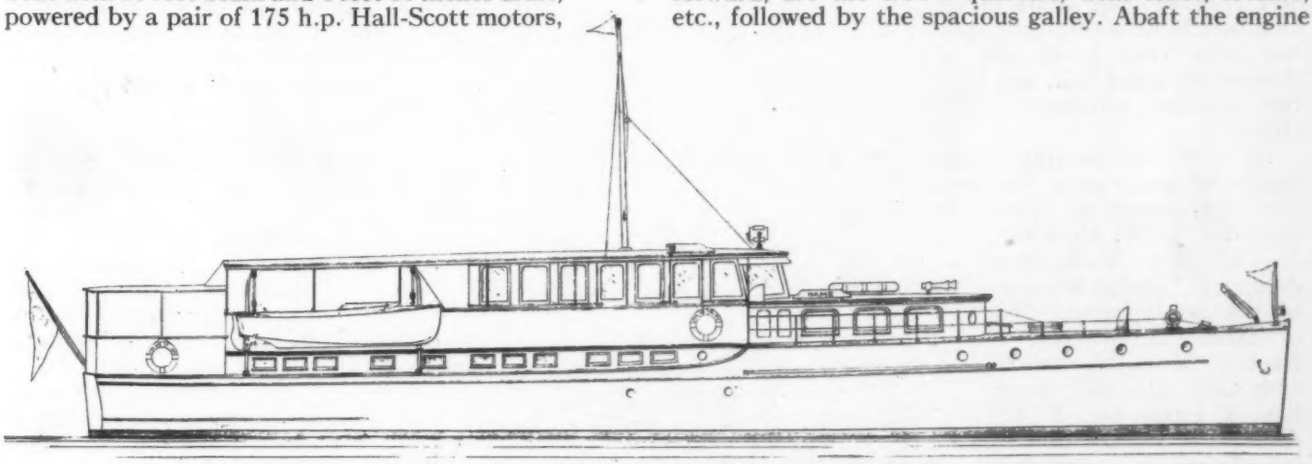
easy to handle, and will drive her at considerable speed.

The design is a development of the fine little knockabout *Merla* which the same designer turned out some years ago, and which is well known around Marblehead and adjacent waters. A two h.p. Model YT 1 Palmer motor will do the trick when the wind fails. This little boat should be decidedly able, very comfortable, and fairly fast, and combine a maximum of boat with a minimum of building cost. The addition of a small, unobtrusive motor to boats of this type and size is a decided step forward, and will appeal to many yachtsmen, old and young.

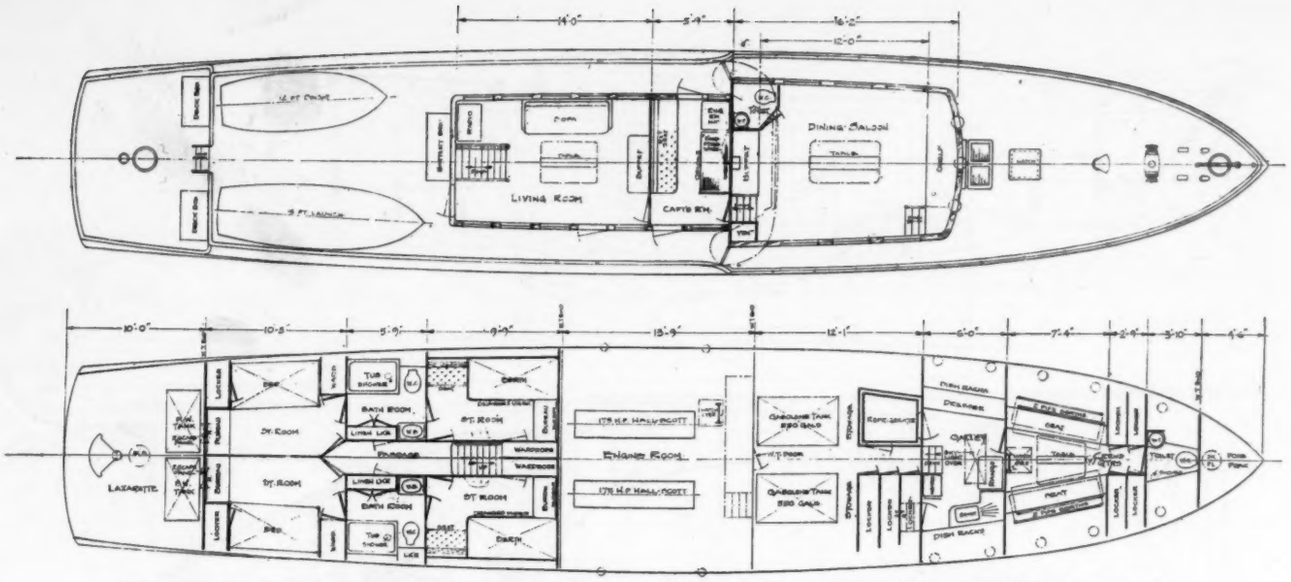
A.C.F. Turns Out a Twin Screw 86-Footer

IN order to fill the needs of prospective customers who desire larger craft than they will find in the regular line of A.C.F. cruisers, the American Car & Foundry Co., of Wilmington, Delaware, have turned out the design of a handsome 86-foot, twin screw craft which should make a strong appeal to the discriminating yachtsman. The plans of this craft are reproduced on this and the following page, and show an up-to-date boat with 16 feet beam and 4 feet 10 inches draft, powered by a pair of 175 h.p. Hall-Scott motors, and equipped with all the modern auxiliaries necessary for economical, efficient and reliable operation. Gasoline capacity of 1100 gallons assures a large cruising radius without the need of refueling.

The sunken deckhouse contains the dining saloon, abaft which is the enclosed bridge and captain's room. The main deckhouse is used as a living room, and is equipped with buffet, sofa, radio, etc. Below decks, forward, are the crew's quarters, with toilet, lockers, etc., followed by the spacious galley. Abaft the engine



The handsome profile of the new twin-screw 86-footer designed by the American Car & Foundry Co.



The deck and interior accommodation plans of the new A.C.F. 86-footer, powered by two Hall-Scott motors.

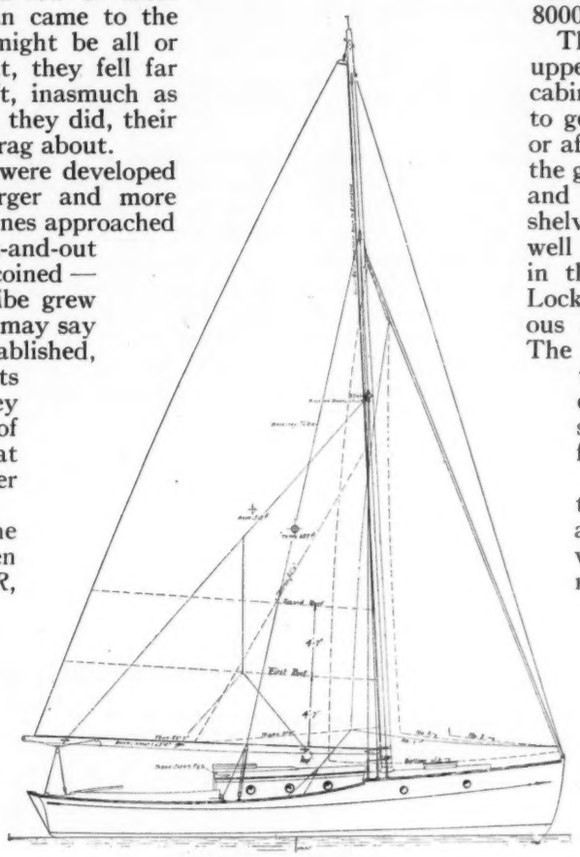
compartment are the owner's and guests' quarters, consisting of four staterooms, two bath rooms, linen lockers, clothes lockers, etc. The deck space is excellent, and two boats, a 12-foot dinghy and 15-foot launch, are carried on davits. Equipment and furnishings are complete and of the highest quality.

Nancy R — A Motor Sailer of Distinction

A FEW years ago a new type of auxiliary cruiser appeared upon the horizon, and was dubbed a "50–50 cruiser" — meaning, of course, that she was half a power boat and half a sailing craft. After observing the performance of a few of these boats, the average yachtsman came to the conclusion that while they might be all or more than half a power boat, they fell far short of being a sailing craft, inasmuch as they seldom sailed, and when they did, their performance was nothing to brag about.

But gradually these boats were developed as sailers — they sported larger and more efficient sail plans, and their lines approached more closely those of the out-and-out sail boat. A new name was coined — "motor sailer" — and the tribe grew and prospered until today we may say that it is reasonably well established, and that at least some of its members have shown that they can take very good care of themselves under sail, and beat the average auxiliary under power.

An excellent example of the successful motor sailer was seen the past season in *Nancy R*, built for J. W. Rockwell, Jr., of New York from designs of Gordon Munroe, of the newly-formed firm of Munro & Munroe, of Boston, Mass. She is 35′ over all, 31′ 10″ water line, 9′ beam and 5′ 11″ draft, and swings 690 sq. ft. of sail in a modern jib-headed sloop rig. A 28–40 h.p. Red Wing motor drives her at better than an 8-knot clip. She has a sweet sheer, short ends, moderate beam, good draft and lateral plane, and sections, water lines and diagonals which denote an easily-driven hull. Outside ballast of 8000 lbs. insures stability.

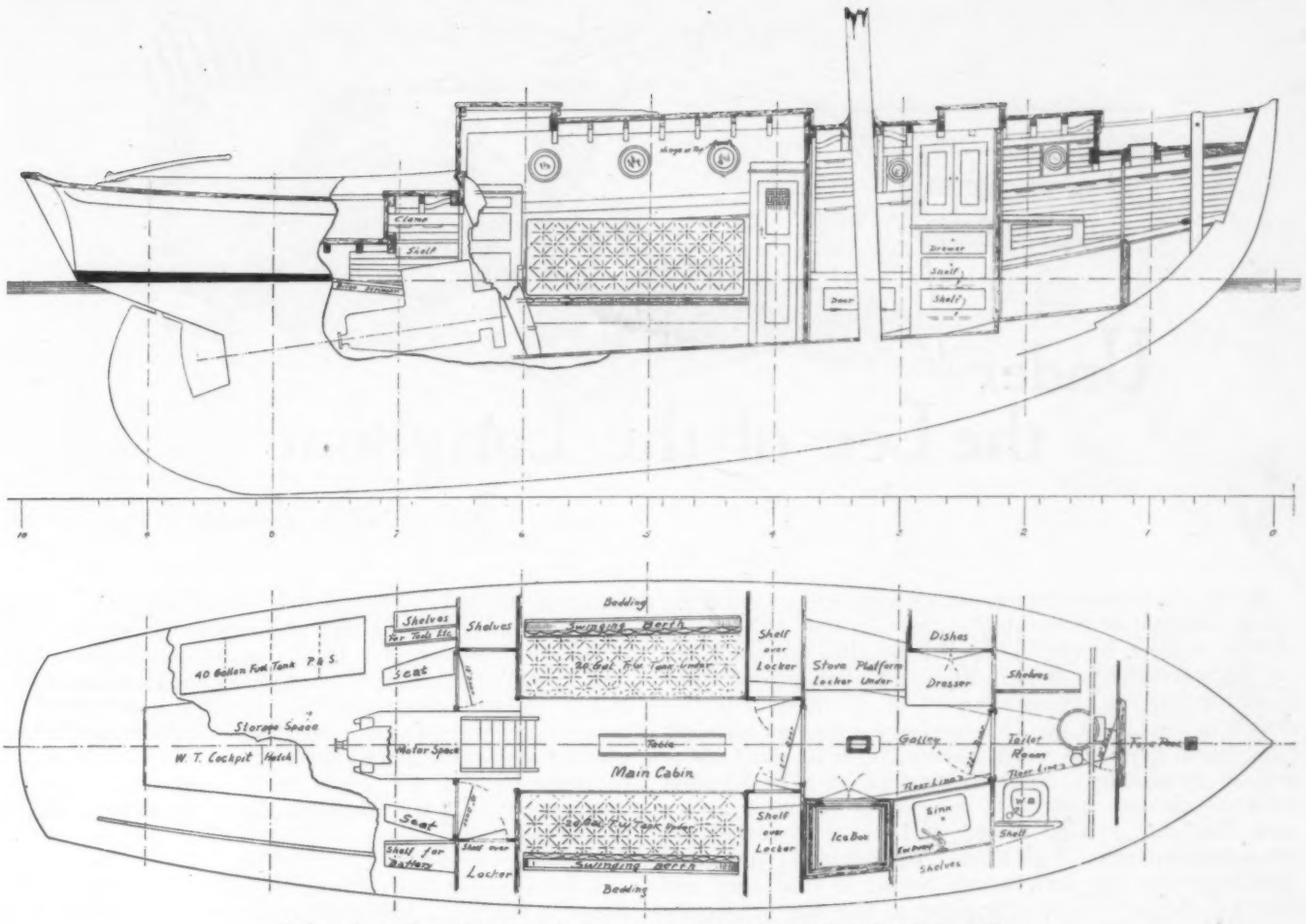


Sail plan of *Nancy R*.

The cabin house admits of both upper and lower berths in the main cabin, with no attempt being made to get "staterooms" either forward or aft. The plans show how spacious the galley is, with a big icebox, sink, and dresser, and plenty of lockers, shelves, etc. The toilet is placed well forward, and the chain locker in the eyes of the boat, as usual. Lockers and shelves are also numerous and large in the main cabin. The engine is tucked away under the bridge deck, where it is easily accessible, which leaves still more space in the lazarette for stowage of all kinds of gear.

The rig is all inboard, and therefore easy to handle, and is about as simple as could be devised. While the sail area is moderate, it is quite sufficient to drive the hull at fine speed, as numerous people have had occasion to observe when they have tried to pass *Nancy* in boats of similar size.

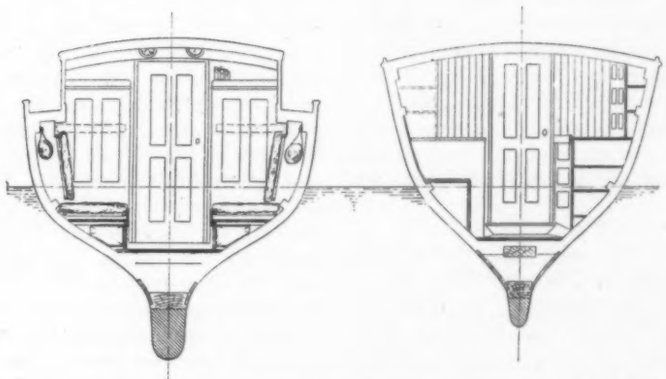
To show what she could do under canvas, *Nancy R* entered the Gibson Island Race and made a good showing in a large fleet of



Inboard profile and interior layout of the successful motor sailer *Nancy R*.

fine windjammers. In the Block Island Auxiliary Race, under sail and power, she finished well up when strenuous weather conditions caused many of the entries to withdraw. She wound up by taking second prize in the Huntington-Cornfield Auxiliary Race, a record which should go a long way toward convincing the skeptics that a motor sailer can perform creditably under sail as well as under power.

No constructional weakness whatever developed due to the mast going through the raised deck — in fact, the raised deck construction, with short cabin house, is said to be stronger than that found in many auxiliaries with long cabin trunks. The large water and gasoline tanks, combined with the excellent storage and stowage space, and large ice chest, give *Nancy* a large cruising radius without the necessity for stops to fill up with food, water, ice or fuel. Altogether, she is a fine example of a type which should see great development as soon as its good points become better known, which should be in the very near future.



The sections of *Nancy R* give a good idea of her hull form and the room under the raised deck forward.

Under the Lee of the Longboat

by Cap Stan

ALL yachtsmen interested in long distance racing should be interested in the fact that our British cousins in the Ocean Racing club are considering the advisability of including a rig allowance in their handicapping, as brought out in M. Heckstall Smith's article in the last issue. This has been a long-established custom in American yacht racing, both in short races and in long ones, and it is pleasing to see the idea adopted abroad, just as it is pleasing to see America and England getting closer and closer together on measurement rules of all kinds. A point in the proposed handicaps for rigs well worth noting is that they are putting staysail-rigged schooners in the same category as single-masted craft. Our own rule makers should take a tip, so that a gaff-headed schooner will no longer be forced to meet a staysail-rigger on equal terms. Here and there, on both sides of the pond, you will, of course, find a few people who don't believe in rig allowances in any form, such as E. G. Martin, who thinks they put a premium on an inefficient rig, and Gardner Emmons, whose letter the Skipper has promised to publish elsewhere in this issue.

Mr. Emmons is apparently a staunch believer in staysail-riggers, though I cannot quite see where he backs up his claims with real facts. For instance, the fact that *Niña* beat *Mohawk* on a leg in the Fastnet Race when the former either carried no staysail at all, or a small Queen staysail, carries little weight, inasmuch as *Niña* was merely reducing sail in a hard breeze. When I asserted that a staysail-rigger was slow without her upper staysail, I meant, naturally, in average going — light to moderate weather, such as prevails during most of our cruising. A hard blow, when all boats are under reduced canvas, is hardly a test of the value of the upper staysail.

* * *

Anent "wire and winches," no less than the world-girdling Conor O'Brien, in an article on "The Ideal Ocean Cruiser," in *The Yachting Monthly*, has the following comments to make: "Rope for running gear . . . Mr. Weston Martyr's idea of all wire and winches seems suicidal: One could do nothing if anything carried away or jammed!"

* * *

Designers, builders, owners and operators of all craft using gasoline motors are earnestly requested to read and study "Chas" Hall's article in the last issue, "Say, Do You Smell Gas?" There is no sound excuse for a great percentage of the fires and explosions which occur in motor-driven craft. Bad engine installation, bad tank installation, lack of ventilation, carelessness while taking on fuel, careless operation — these are the principal causes of the trouble, and they can all be eliminated without any great amount of trouble. The article points the way. Read it and profit by it, so we may have far less trouble and apprehension along these lines in the future.

* * *

Yachtsmen in Long Island Sound and nearby waters have, in the past, had little cause to worry about that pest with which southern yachtsmen have had to deal so long — worms. In the future, however, they had better keep a weather eye open. I have just seen a two-year old schooner at City Island having a third of her planking renewed — it was honeycombed with worm holes. Another schooner, three years old, is said to be in the same shape. A two-year old float which went on the rocks recently near Larchmont knocked some splinters out — and they were badly worm-eaten. Evidently the worms have migrated to northern climes. Whether they will stay another season or not no one knows, but it behooves us to be more careful in the future about keeping our craft well covered with the best kind of bottom paint, and to keep a particularly close watch on centerboard trunks and rudder ports.

* * *

Deep draft is not only unnecessary for speed to windward in open going, but may be a positive disadvantage in rough water, opines Commander E. G. Martin in his interesting article on "Ocean Racers" in the last issue, and gives his reasons for his beliefs. Sufficient lateral plane, rather than deep draft, is what is wanted, according to Commander Martin, who has had a deal of experience in racing and cruising, in all kinds of going, and who is a deep student of the game from every angle. Looking back upon the notably successful ocean racing careers of such deep draft craft as *Jolie Brise* and *Niña* naturally causes one to hesitate before accepting this opinion. But if *Tiercel* and other craft of moderate draft should go into competition and prove the case, it would go far towards proving the Commander right, and point the way towards less draft in cruising craft, a feature much to be desired, in practically all waters where yachts are sailed.

Another Foul at the Start

CONTINUING its efforts, started last month, towards educating racing skippers in the rules governing right of way at the start of races, we publish herewith a situation which developed in a race held by the Larchmont Yacht Club last summer, with an explanation of the circumstances and the decision of the race committee.

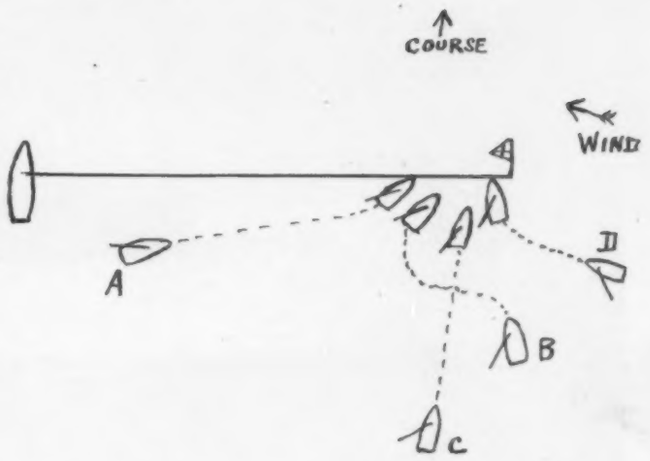
The wind was moderate. Boat A was close-hauled on the starboard tack, sailing a course almost parallel with the starting line, timed to reach the weather end of the line when the starting gun fired. Boat B was out to weather, and too soon, so swung off to kill time, and rounded up close to A, so that the latter was forced to bear away. Boat C came along, with wind aft, and planted herself to weather of B. Boat D came in before the wind, with sheets flat and little headway, and hit the starting mark. The positions in the diagram show the boats as they were placed just before the starting gun, all being closely bunched.

Boat A protested B and C for failing to give way to A when the latter was close-hauled. Boat D was protested by E (not shown) for striking the mark.

At the hearing, B claimed he could not luff clear of A because C was to weather of him. Boat C claimed he could not luff because D was to weather of C.

The committee decided that boats B and C, in approaching the line with wind aft, did so at their own peril, and had no rights on a boat close-hauled. B should have kept clear of A, and C should have kept clear of B.

Yacht B was disqualified under Rule XVIII, Sec. 1: "A yacht free shall keep clear of one close-hauled." Boat C was disqualified under Rule XVIII, Sec. 3: "When both yachts are free, and have the wind on the same side, the yacht to windward shall keep clear."



Boat D was disqualified under that part of Rule XX, Sec.1, which reads as follows: "A yacht touching a mark, unless wrongfully compelled to do so by another yacht, shall at once abandon the race." By breaking this rule, yacht D committed a most unsportsmanlike act, and might well be disciplined under that part of Rule XX, Sec. 4, which reads as follows: "Should a gross breach of these rules be proved against any sailing master, the Race Committee may disqualify him from sailing in any race held by the Club for such time as they see fit."

A Defense of the Staysail Rig

Dear Cap Stan:

YOUR original proposition, as I understood it, was that staysail-rigged schooners should be barred from races organized for real cruising craft. More recently you have modified your position to the simple declaration that the staysail rig is not a real cruising rig, thereby giving yourself a verbal advantage. I have no contribution to make to an argument of the latter sort; rather, I prefer to discourage it. Although it serves as an excellent topic for heated after-dinner discussion, it seems to me futile to carry it to any length in your columns.

The sport of cruising, as distinguished from that of racing, is governed not by rules, but by personal choice. One might argue with equal profit as to whether or not a schooner with an engine is a real cruising boat. However, allow me to give my opinion on this question.

The staysail rig, inherently, is fully as easy to handle as the gaff rig. The only difficulty encountered with the staysail rig has been the setting of the upper, or Advance staysail. This is due entirely to unfamiliarity with the rig. Few, if any, yachtsmen have had as much experience with the staysail rig as with the gaff rig. Everyone has been brought up on the old-fashioned gaff foresail. Moreover, without the Advance staysail set, a staysail schooner is easier to handle than a gaff-rigged schooner. Furthermore, under those conditions, she is far from being "as dead as a salt mackerel," as I shall point out to you in a moment. It is my conviction that the lower, or main staysail alone has more driving power to windward than the larger, but less efficient gaff foresail.

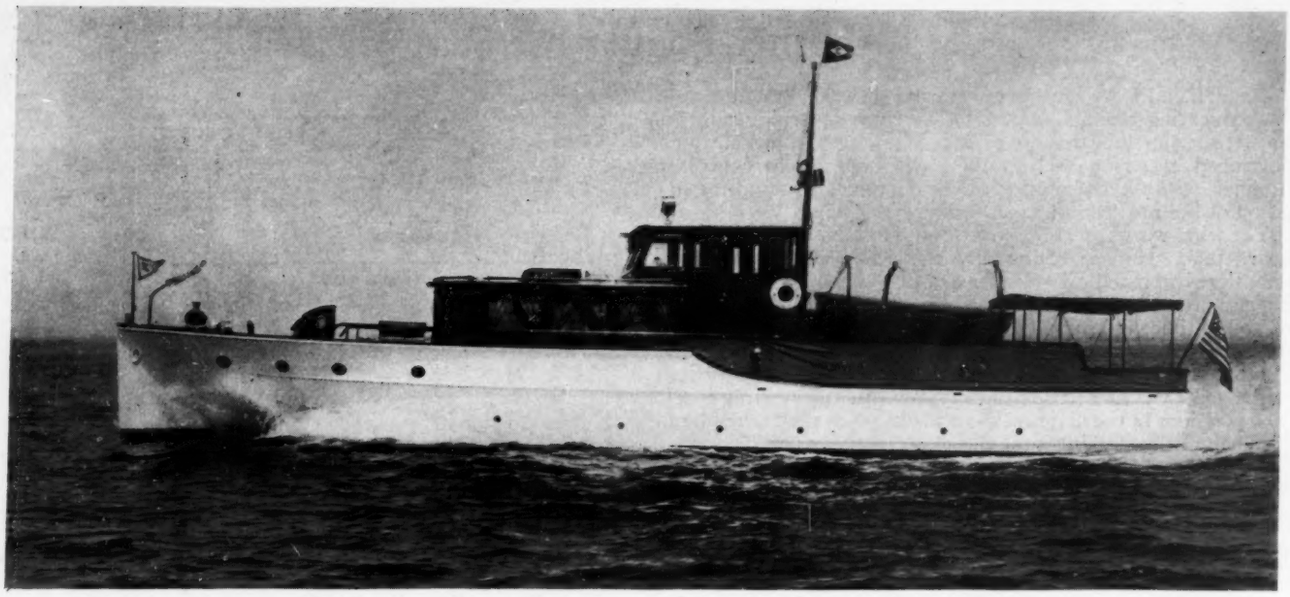
To return to the question of barring staysail-rigged schooners from races organized for real cruising craft, in other words, so-called "ocean" races, I see here an opportunity to start another and more profitable argument. It seems to me that your sole aim is to prevent the staysail schooner from participating in such races. Therefore, you have adopted your own rigid interpretation of the conditions governing the Bermuda Race. If you believe that speed should in no way be considered a desirable factor in the development of the ideal type of boat for ocean racing, I heartily disagree with you.

Cruising is one thing, racing another. I know that Warwick Tompkins did not fully appreciate that fact in the 1928 Fastnet Race. Commodore Martin, in his recent article, "Ocean Racers" (YACHTING, November, 1929), shows a very sane attitude. He believes it wrong to make allowance for rig, to "put a premium on inefficiency," and to "penalize an owner for entering the most efficient yacht he can produce." On the other hand, you take the extreme attitude. Not satisfied with handicapping the staysail rig, you would bar its entrance entirely. If the Bermuda Race Committee's interpretation of their rules agrees with yours, I believe that we have uncovered something really worthy of a serious argument.

One word more. Your reply to Paul Hammond's communication was, on the whole, reasonable enough. However, you made the mistake of introducing into your discussion at one point the question of relative speeds. Your statements that "your schooner with gaff foresail . . . will knock the daylights out of the staysail schooner without the upper staysail set," and that "the queen staysail adds so little to the speed that it is hardly noticeable," are utterly ridiculous. If you will turn to Commodore Martin's article in the November number of YACHTING you will see a photograph of the *Niña* close-hauled with her queen staysail set. That photograph was taken from the deck of the *Mohawk* in the 1928 Fastnet Race after *Niña* had rounded Fastnet Rock and was bound back for Land's End. This leg of the race, from Fastnet to Land's End, was 160 miles in length, and a close fetch (for *Niña*). During three-quarters of this leg *Niña* did not have her upper staysail set. For about 120 miles of the distance she sailed with either main staysail alone, or with the queen staysail, as shown in the photograph. Here's what happened. *Mohawk* rounded Fastnet Rock five hours after *Niña*. *Niña* made her landfall at Cape Cornwall, the headland adjacent to Land's End. Six hours later *Mohawk* made her landfall 60 miles to leeward of Cape Cornwall. Both boats had experienced the same weather conditions. (I refer you to Weston Martyr's account of that race in YACHTING for October, 1928.)

I trust, therefore, that you will endeavor to lead any further discussion into more sensible channels.

GARDNER EMMONS.



Ibel is a 55-footer driven by two GMF–6 Buda motors, which give her a speed of 13½ m.p.h.

Of Interest to the Skipper

Famous Yard Active

THE old time yard at Pistol Point, Mystic, Conn., has been taken over by the newly formed Almac Yacht Corporation and has been devoted to the production of a single type of motor craft. There, where such vessels as the noted clipper ship *Andrew Jackson* were built, will be turned out a class of modern express cruisers. These will be known as the "Seven Seas Cruisers" and will be 50-footers driven by a pair of 200 h.p. Sterlings. The yachts will be framed with oak and planked with mahogany and will have mahogany houses and trim.

Head of the new corporation is Louis O. Macloon, formerly of the Pacific Coast, who is responsible for the design of the boats. Joseph Urban has planned the interior decorations. The first of the class is to be launched this month, and another will be seen at the coming Motor Boat Show in New York.

A Florida Station

At Jacksonville, Fla., is an attractive service station that is available to all yachtsmen. It is the yard of the Huckins Yacht Corporation, and there yachts may be hauled out and repaired, and gas, oil, stores and service of all kinds may be had. It is an up-to-date station and is under the personal charge of Frank P. Huckins.

The Scripps Line

With ten models of marine motors of powers varying from 5 to 200 h.p., the Scripps line is available for service in fast runabouts or cruisers of several sizes and types. For such speedy boats as the well-known Chris-Craft and Gar Wood runabouts, where flexibility is essential and full power at high speed for long runs a requisite, the Scripps is a favorite. Such a boat may lie alongside the float waiting for her owner and with the motor idling for a time. Then, when he steps aboard, full power is needed on the instant. Smooth and quiet operation characterize speedy boats of this type. The cruiser, on the other hand, uses a motor of slower revolutions, but that engine is plugging away all day and often all night also. When a heavy head sea, with a vicious wind behind it, is met, the motor must perform at high efficiency for long periods. At such times the quality which was built in at the factory will keep the propeller turning and the boat driving ahead without a whimper and bring her into port at the end of a grueliing run, all shipshape and Bristol fashion. The Scripps Model 202 has been selected as the power plant of the fine 36-foot Corsair cruiser. For this service, its compactness is also a determining factor as it fits under the floor of the cockpit.

In racing, too, the Scripps has a long list of victories to its credit both in cruisers, runabouts and specially built speed craft.

Identification

Not only can the yacht owner have his club pennant and private signal on his china or glass and also on his specially made cigarettes, but now he can have all of his linen marked with his flag. This not only adds an attractive touch of color but also increases the probability that all of the yacht's linen will come back from the shore laundry. Cash's woven names have long been known and used in the home, and these may also be had for service afloat. The owner's pennant in miniature is supplied in one, two or three colors and on either a dark or a white background. These make a unique marking for the yacht's supply of linen and may be had at moderate cost.

Johnson to Build Boats

Long identified with the building of outboard motors alone, the Johnson Motor Co. announces that in 1930 it will supply a complete line of boats suitable for propulsion by its motors. The new craft, which have been designed by Johnson engineers and which will be merchandised in matched units with the various motors in the Sea Horse line, will be first shown to the general public at the coming Motor Boat Show in New York next January. They will be available for delivery early in that month.

In making the announcement, Warren Ripple, president of the company, said: "Heretofore boats have been built by one industry, motors by another. It has long been evident that the perfect matching of boat and power plant was necessary and desirable. Outboard enthusiasts have long seen that boats and motors should be properly matched to insure the maximum of efficiency. The matched unit is the answer to their demand, boat and motor being fitted to each other so that each develops the highest efficiency."

The hulls, it is declared, will introduce several new and important features, both in design and construction. Experimental models have been put through a long series of tests.

The first of the new "Seven Seas Cruisers" built by the Almac Yacht Corp., of Mystic, Conn.

New Runabout

A new 16-footer with an inboard motor is announced by the builders of Dee Wite boats. The new craft is moderately priced and is fully equipped. This model is the forerunner of an enlarged line which will be displayed at the New York Show. It is driven by a Van Blerck, Jr., engine equipped with self-starter, reverse gear and 6-volt battery. It is controlled from the driver's seat in the forward cockpit, ignition switch and starting button being placed on the bulkhead. The boat is steered by a wheel of automobile type.

The location of the motor in the after end of the boat was decided on only after a series of experiments to determine the best distribution of weight to insure maximum speed and performance. Two large and comfortable cockpits are placed forward of the motor compartment, clear of spray and close enough together not to separate the party. Equipment includes full vision windshield mounted in rubber, brass fittings heavily nickeled, electric bow and stern lights, lifting rings, self-bailer, ensign and burgee.

These boats will be distributed by Wilbur H. Young and J. A. Sprague of New York.

The Dee Wite 16-foot runabout has the motor under hatches aft.

The "Silver Ghost"

When the finest in radio reception from practically any station is wanted, consider the "Silver Ghost" receiver built by C. R. Leutz, Inc., specialists in fine sets. This is a 12-tube superheterodyne. Sets of this model have made some marvellous records in distance reception, with wonderful quality. Interchangeable R. F. transformers give a range from 15 to 3,000 meters wave length.

Jean III

Recently delivered to her owner and now cruising in southern waters, is the new motor yacht *Jean III*, designed and built by the New York Yacht, Launch and Engine Co. for Joseph S. Caldwell of Syracuse, N. Y. She is 80 feet long and 16 feet beam and is driven by a pair of 100 h.p. Twentieth Century motors, which give her a speed of 15 m.p.h. Her accommodations for the owner's party consist of two double and two single staterooms, two bathrooms and a deck dining room.

The new yacht is equipped with Frigidaire refrigerating plant, Decatur pressure water system, Universal 4-kw. generating set, Exide batteries and Goodrich Cutless bearings. Columbian propellers are fitted. All hardware is Topping's white metal and the toilets are the new ejector type Curtiss. Carlisle & Finch searchlight, American Engineering Co. electric windlass and Protane gas range are installed. The yacht carries a 15-foot tender and a 12-foot dinghy.

Dodge Makes Important Announcement

One of the most interesting announcements that has reached us concerns the new line of boats that will be built by the Horace E. Dodge Boat and Plane Corporation. Nine boats, ranging in size from a 16-foot runabout to a 45-foot express cruiser, will comprise the line. The cruiser will be a double-cabin, twin-screw boat with sleeping accommodations for eight. All units of the 1930 Dodge fleet will be powered with Lycoming motors.

The contract for the erection of the recently announced new plant of the Horace E. Dodge Boat and Plane Corp. has been awarded to the Virginia Engineering Co., of Newport News, Va., and construction will be started at once upon the first unit.

"The present construction," said the announcement authorized by Mr. Horace E. Dodge, Jr., president of the company, "will anticipate future needs; but the first building that will be rushed to completion is one that will supply about 200,000 square feet of floor space which will be devoted to the construction of hulls alone, as these are urgently needed. At the same time we are building a power plant sufficient for our entire contemplated building, several times greater than this first unit. We are also building an airplane landing field in anticipation of the early manufacture of seaplanes and amphibians, and a large boat basin.

"We have developed a complete new line of boats. We have added new sizes, which, with the cruisers to be built at the new plant, will give the boating public a complete range of mahogany runabouts, sedans and cruisers of Dodge quality, at new and definitely lowered prices."

The Horace E. Dodge Boat and Plane Corp. succeeds the Horace E. Dodge Boat Works of Detroit.

Jean III, a new 80-footer owned by J. S. Caldwell, of Syracuse, N. Y.

Diesel Patrol Boat

A boat recently completed for the State of New Jersey is the *Senator F. M. Reeves*. She was built from designs by J. Murray Watts and is 90′ long, 21′ beam, and 6′ draft. Her displacement is 102 tons. Her power plant is a 6-cylinder 8½″ by 12″ Standard Diesel which, turning a 54″ by 46″ propeller, drives her at 14 m.p.h.

New Jersey's patrol boat *Senator F. M. Reeves* is driven by a Standard Diesel.

Brennig's Virginia Cigarettes

Brennig's Own, 501 Fifth Ave., New York City, announces that the well known Brennig's Own "Flag Cigarettes" may now be ordered made of a new blend of choice Virginia tobacco as well as of Turkish tobacco.

Both blends may be had in cigarettes bearing your private signal and yacht club flags in colors. Many yachtsmen have ordered book matches with their flags on the cover, in addition to the cigarettes.

Heavy Work

Fifty miles up the Patuca River, Honduras, traffic is carried on in "pit pans," native canoes some 65 feet long and about 4 feet beam. These are dug out of a single mahogany log and are, it may be seen, rather unwieldy and heavy craft. The sole motive power of these clumsy boats is a Johnson outboard which handles them even when the river is in flood stage, 30 feet or so above normal level. One of these motors has driven a "pit pan" more than 5,000 miles in a single year.

Moves to Philadelphia

Announcement is made of the removal from Geneva, N. Y., to 2200 Diamond St., Philadelphia, Pa., of the marine engine business of the Fay & Bowen Engine Company, including the general offices and manufacturing plant.

With increased capital, enlarged personnel, and expanded production facilities, this company is now more adequately equipped than heretofore to manufacture Fay & Bowen marine engines.

A Johnson outboard drives these 65-foot "pit pans" in Honduras.

Bakelite Marine Varnish

Bakelite resinoid, one of those versatile products of chemical research, has recently been "discovered" in the form of a protective varnish for yachts and motor boats. Older types of phenol resinoid varnish have been used in power houses to impregnate electrical windings, and one type of transparent resinoid has long been familiar to the public in the form of pipe bits and cigar holders. Incorporated with wood flour or asbestos fibre, other resinoid materials have been used as electrical insulation in the ignition systems of all American automobiles and airplanes.

Bakelite marine varnish is made with a phenol resinoid product incorporated in suitable solvents. Prior to announcement of the new product, tests have been conducted during a period of two years in Florida. There, wooden panels, some coated with the earlier types of marine varnishes, others with the new material, were subjected to alternate immersion in sea-water and exposure to sunlight, with the rise and fall of the tide. This was a severe test, but the new varnish is reported to have stuck to its job, literally. Heretofore, marine varnish has been made from the resins, oils, and pitches which occur in a natural state. The novelty of the new material lies in the addition of the phenolic super-resins, or resinoids, so-called, which were invented in the chemical research laboratory by Dr. L. H. Baekeland.

The technique of applying the new marine resinoid varnish has been published in convenient form for the casual boatman, as well as for the large-scale ship builder.

Cruisabouts for 1930

Three models of the peppy little 29-foot cruisers known as Cruisabouts are announced for the coming season. The new boats are 29 feet long, 8 feet 10 inches beam and 2 feet 4 inches draft. Like their predecessors, they are round bottom craft, and are built in three models, the Single Cabin, Double Cabin and Day Cruisabouts. The plant of the Richardson Boat Co., the builders, has been greatly enlarged and is up to the minute in layout and equipment.

The Single Cabin Cruisabout is a fifty-fifty day and cruising boat having a large cabin with clothes lockers, toilet room, galley, suitcase stowage and berths for four people and, in addition, a windshield protected cockpit 10 feet long, with a seat across the stern.

The Double Cabin boat has the same large cabin forward as that found on the Single Cabin Cruisabout. In addition, there is a stateroom cabin at the stern with two wide berths, lockers, dresser, clothes hanging space, etc. This stateroom cabin is ventilated by two windows and two port holes.

Gray 6-cylinder 60-h.p. motors, complete with flame-arrester, non-overflowing gasoline drip pan, base ventilator and many other refinements are offered as standard power on the 1930 Cruisabouts. These motors drive the Cruisabout at nearly 12 knots.

For those who have use for a yacht tender, day cruiser, fishing, ferry or freight boat, the company offers the standardized 29-foot Cruisabout with a cockpit 16 feet long and a small cabin forward with comfortable accommodations. Equipped with a 110-h.p. 8-cylinder Gray, this boat is driven at 16 knots.

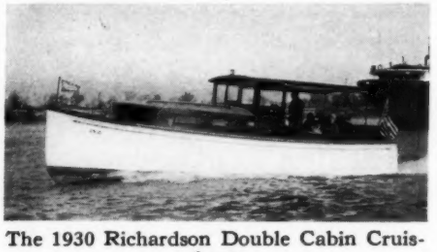
Among the new features which are standard on the 1930 Cruisabouts are a built-in bilge pump placed within easy reach of the helmsman and the new Willis alcohol galley stove with remote tank. The gasoline tank fillers and ventilators are placed outside the cockpit coaming which prevent gasoline overflow or fumes from entering the bilge. In addition, the gas tank filler pipes are of the non-splash type which reach to the bottom of the tank.

Both cabin and bilge of the Cruisabout are completely and automatically ventilated by a new arrangement. This prevents any possibility of the disagreeable, musty odor which sometimes develops when a yacht is not in use except for the week-end and the proper precautions for ventilation are not taken.

The 1930 Cruisabouts, in accordance with the Richardson policy, are built only of fine materials. The framing is of white oak with a single length keel sided 3 inches. All steam bent frames are in single length from keel to sheer. Each pair is fastened securely to the keel with extra strong white oak floors and the frames carrying the weight of the motor are spaced 5-inch centers.

The planking is of clear, straight grain cedar ⅞-inch thick, and galvanized screw fastened to the frames. The transom, cabin trim, cockpit coaming, windshield and all other superstructure are of solid Philippine Mahogany, especially selected to assure matched coloring.

Bakelite marine varnish is used on N. S. Corwin's *Alala*.



The 1930 Richardson Double Cabin Cruisabout.

Another Chris-Craft Cruiser

According to an announcement just made by Chris Smith & Sons Boat Co., a new cruiser will be exhibited at the New York Motor Boat Show. She will be a 48-footer of V-bottom model and is the result of many inquiries for a roomier and larger boat than the popular 38-footer of which sixty were built last year and sent all over the world. The new boat was designed by Chris Smith to meet this demand and will be, it is declared, a remarkable craft. No details have yet been given out. Much care was spent on her layout which includes quarters for a cruise of a week or two. The production schedule calls for thirty of these new cruisers.

Aluminum Alloys

A recent bulletin issued by the Bureau of Engineering, U. S. N., calls attention to the weight saving qualities of aluminum and its alloys in view of the restrictions of tonnage by the Limitation of Armament Conference. Yachtsmen have long been interested in the saving of every unnecessary ounce and have made use of aluminum for a considerable time. In some form it is used afloat everywhere, whether as Duralumin or in some other of the salt water resisting alloys. Much of the structure of the outboard motor is of an aluminum alloy, as are many models of inboard marine engines. When properly heat treated, Duralumin has the strength of structural steel with about one third of its weight. At the Philadelphia naval aircraft factory, acetylene welding of Duralumin has been developed to a satisfactory state. The bulletin describes general methods of welding and riveting Duralumin sheets.

New Boats on Display at Bruns-Kimball

Mr. Wm. Bruns, President of Bruns-Kimball & Co., New York City, announces the opening of the 1930 line of Matthews Cruisers, Richardson Cruisers, and Hacker Runabouts, on display at their showrooms, Fifth Avenue and 15th Street. Here, in the largest permanent display room in the industry, one may examine at leisure and without the discomforts of crowds or sales pressure, the new models embodying many refinements and improvements in these standard lines over those turned out in previous years. There is much of interest to be seen in this display, both by the novice and the veteran in boating, and probably at no other one spot can one secure as much data and assistance in obtaining a boat best fitted for particular needs.

A full line of 1930 Sterling and Kermath engines will also be found in the showroom.

Irving Cox Heads Brokers' Association

Irving Cox was elected president of the Yacht Architects and Brokers' Association at the annual meeting of the association held recently at the rooms of the Society of Naval Architects and Marine Engineers. Other officers elected were Frank Bowne Jones, secretary and treasurer, and the executive committee, John H. Wells, C. G. Amory, H. H. Jennings and Drake H. Sparkman.

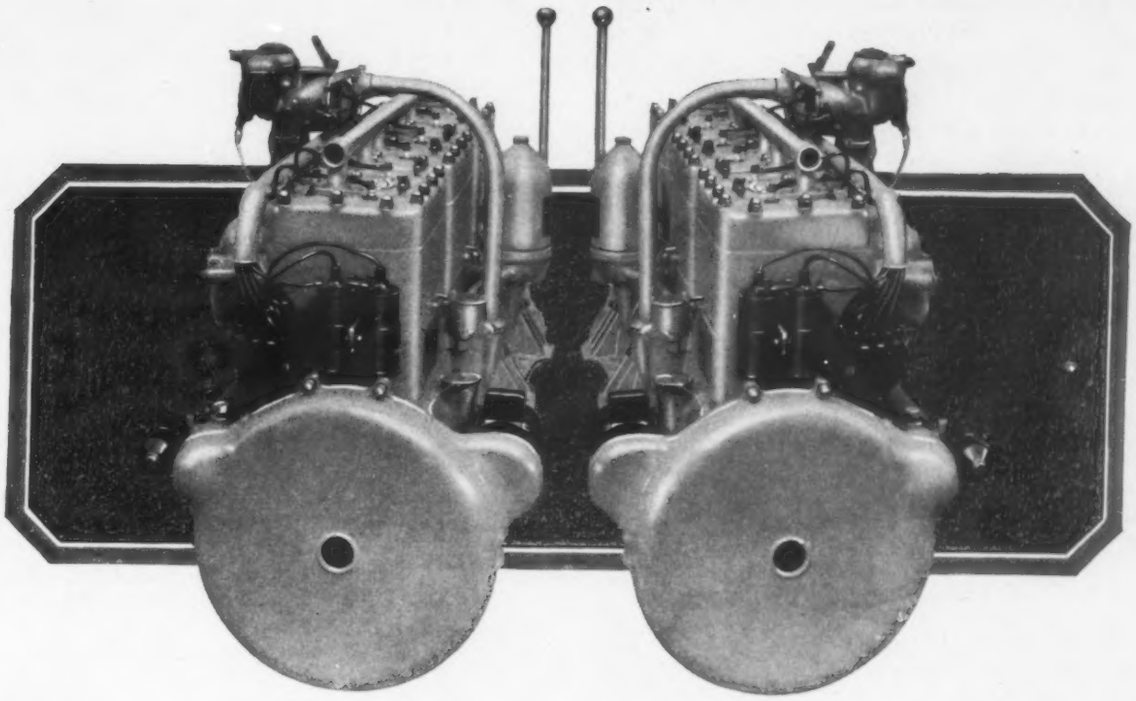
Two advisory committees were elected, as follows: advisory committee on architecture, J. H. Wells, T. F. Bowes, W. G. McGinness, C. A. Nedwidek; advisory committee on brokerage, H. H. Jennings, F. T. Monroe, H. E. Sanford, N. G. Shortway, Edgar Offer, F. B. Jones.

The meeting was followed by a dinner at the Engineers' Club at which prominent yacht builders were present as guests.

"Old Ironsides"

Soon after the last of the money needed to recondition the U. S. S. *Constitution* has been raised — some $100,000 is lacking at present — the grand old ship will again spread her canvas to the breeze. This work, started with the pennies of school children all over the country and aided by contributions from many a yachtsman, should go on to a speedy conclusion. When the public learns that a little more effort is needed 'twill be forthcoming. For one item of material there will be no expense, for all of the marine glue necessary in her overhauling has been donated. Half of the quantity was presented by L. W. Ferdinand of Boston, American agents for Jeffery's Marine Glues.

(*Continued on page 133*)



TWINS

A coordinated team, perfectly matched and superbly balanced

SPARKLING, smooth, simple, strikingly symmetrical, SCRIPPS Twins, refreshingly devoid of mere trappings, snugly compact in their respective assemblies, draw the admiring eyes of both novice and him who is "motor-wise."

Nor is this admiration centered on appearance alone, for in every detail of construction SCRIPPS Twins strike a new note in dual power plant design.

Fashioned, it would seem, in the same mold SCRIPPS "rights" and "lefts" are in fact fundamentally distinct models. Neither one is a makeshift adaptation of the other. Each is individually patterned from the ground up to best perform and survive under the stresses and strains peculiar to its rotation.

A fully illustrated 32-page catalog describing all SCRIPPS models will be sent on request.

The distinct and thorough design of SCRIPPS Twins is emphasized in every basic detail. The firing order of each motor is identical—1-5-3-6-2-4. This axiom of right explosive balance and uniform carburetion can be achieved only by the use of crankshafts individually formed for each rotation.

One senses in the SCRIPPS Twins a perfectly matched, superbly balanced and co-ordinated team, each fundamentally attuned to work in true harmony with the other; both eager, alert and readily responsive to the will and demands of the operator.

SCRIPPS Twins are now available for prompt delivery in five distinct power ratings—100 H. P., 125 H. P., 150 H. P., 175 H. P. and 200 H. P. per unit—for medium duty or high speed service.

SCRIPPS MOTOR COMPANY, 5833 LINCOLN AVE., DETROIT, MICH.

SCRIPPS

• THE MOTOR THAT CROSSED THE ATLANTIC •

International Star Class Championship Goes to the Chesapeake

(*Continued from page 73*)

Needless to say, the two leading crews were watching each other like a pair of strange tomcats on a back fence next morning, at ten o'clock, when the starting gun aboard the Coast Guard boat cracked, and the fleet, now down to 21 boats, drifted over the starting line in close order, with very little wind. Both were well back in the fleet, as nearly as one could judge from the course patrol boat, with *Eel* more or less under *Sparkler's* lee. Then another boat — *Budsal*, it looked like — cut into *Sparkler's* faint draft of air and the yellow New Orleans boat slowed down — not much, but enough to let *Eel* out from under her — and the green sloop from the Chesapeake was on her way.

Nobody stopped her — for that matter probably nobody could have, for there wasn't a Star boat in the fleet that could drift with her under such conditions. Out she went, clear ahead of the whole fleet, in the slow climb up wind. She rounded the buoy a few lengths ahead of *Okla*. The next two boats standing in for the mark boat on opposite tacks were *Juno*, the slippery red drifter from the Delaware River, and *Sparkler*. *Juno* made it first, and *Sparkler*, which had had none too easy a time of it getting up through the fleet, was fourth.

Photo by Simes, New Orleans

William McHugh (Left), skipper of *Okla*, winner of the Gulf Lipton Trophy, and Joseph H. Watkins, crew.

Two boats ahead of *Sparkler* and astern of herself — that was what *Eel* had been praying for, and she had it. But would they stay that way? All through the series Gray had shown a marked ability for passing whatever boats happened to be ahead of him, always excepting *Eel*. Now, however, the three boats ahead of him were those that had shown themselves the three best drifters in the fleet, and it was drifting weather. Likewise *Budsal* and *Peggywee* — both very fast boats under any conditions — were right on *Sparkler's* tail and their crews were doing their very efficient damnedest to get closer.

The second leg was a reach on which *Eel* pulled a bit further ahead and *Peggywee* passed *Budsal* and worked in very close to *Sparkler*, which had been unable to close with the boats ahead of her. On the second reach, back to the starting buoy, *Peggywee* worked out to weather of *Sparkler* and passed her, and things looked dark for the New Orleans boat.

They looked darker on the second beat to windward, for while *Peggywee* kept *Sparkler* very effectively covered, two other boats, *Sunbeam* and *Budsal*, slipped into the procession ahead of them both and *Starlite*, from San Diego, rounded the weather mark between *Peggy* and *Sparkler*. *Sparkler's* goose was obviously cooked when she rounded the weather stake boat in eighth place, and on the last two legs only two matters of interest remained — the remarkable way in which the now distant *Eel* kept on pulling out, to lead by nearly seven minutes at the finish, and the close battle between *Okla* and *Juno* for second place, with the gray boat from Southport finally beating *Juno* out.

Eel, the new champion, is a remarkable Star boat and she was built and sailed by a remarkable crew. Graham and Lowndes Johnson, from the Eastern Shore of Maryland, are a pair of middle-aged, quiet gentlemen, who get every last inch out of their boat by sailing her in unflurried calm and deliberation. They are so perfect a team that they seldom speak at all, and then only in the softest of tones. Last year at Newport Harbor Ed Willis christened them "two old buzzards," and the name has stuck with the crowd who sail in the internationals and who have great respect and affection for the soft-spoken brothers.

Their boat is a beautiful job of building, put together on their own place at St. Michaels. She has a heavy keel and a hull that weighs a good deal less than any other boat in the series, and she was polished and tuned up to the last degree. *Ace*, of the Western Long Island Sound fleet, is one of the few Stars of the whole lot of 650 or so that might have made a showing against *Eel* in the drifting weather if she had been there — but she wasn't.

Eel won the first race for the New Orleans Lipton Trophy the next day, but did not show up as well in the two races held on Saturday, and Bill McHugh and Joe Watkins, in *Okla*, with a third, a first and a second, took the trophy, beating out *Sparkler* by only a point or two.

A great many of the boats at the internationals were shipped from New Orleans to Cuba, where the midwinter series opens on January 30th, and it seems assured that the Havana series will see more boats than ever before this winter.

The point standings of the leading boats in the internationals are given below. They show that *Eel* compiled the remarkable total of 108 out of a possible 115 points.

Yacht	*Fleet*	*Skipper*	*Points*
Eel	Chesapeake Bay	J. G. Johnson	108
**Sparkler II*	New Orleans	G. T. Gray	103
Okla II	Central L. I. Sound	J. F. Watkins	92
Peggywee	Western L. I. Sound	Arthur Knapp, Jr.	91
Sunbeam	Great South Bay	W. C. Atwater, Jr.	84
Budsal II	Peconic Bay	F. H. Robinson	75
**Rhody*	Narragansett Bay	B. W. Comstock	73
**Tempe III*	Newport Harbor, Cal.	Walton Hubbard, Jr.	73

* Former international champion.

Preventing Gasoline Explosions on Yachts

(*Continued from page 77*)

affect trim. As tanks are generally placed today, the yacht is only in correct trim for a short period at varying intervals. Poorly located tanks make this effect worse. By contrast, tanks like the one in Fig. 7, placed with proper regard for the longitudinal center of buoyancy, assist in maintaining desired trim.

Under the hydraulic method there is no sloshing about of the liquids for the reason that the tank is "hard." The continual changes of angle of the tank is about the fixed plane of the inter-face of the two liquids; which has a less elastic yield than either the water below or the fuel above. The inter-face retains its horizontal position at all times. Although it has sometimes been suggested that the baffle plates could be omitted with the hydraulic system, they do have a beneficial effect in that they tend to maintain the upward flow of the fuel.

With the method of carrying fuel in loose bulk, it is frequently put aboard in such a manner that every move gives rise to new hazard. It is not an infrequent thing to hear that a boat has blown up while taking fuel. By way of contrast, fueling the tank as shown in Fig. 7, merely displaces an equivalent quantity of harmless water.

Presenting 3 NEW SPEED CRUISER AND COMMUTER MODELS FOR 1930

The 39 ft ROBINSON SEAGULL

Like its predecessors the new 39 foot Seagull model is built throughout of natural finished African mahogany—offers the advantages of cruiser comforts combined with commuting speeds. A higher freeboard and slightly broader beam together with a newly designed underbottom now affords the owner a roomier boat and a smoother riding hull at no sacrifice of speed. The interior arrangement is essentially the same. The cabin is more spacious. Four deep cushioned pullman berths, two large forward driving seats, a smartly fitted galley, together with ample locker space and a toilet complete the ensemble. Hall-Scott, Kermath or Sterling 200 H. P. engines give a driving speed of 30 m. p. h. A large after cockpit accommodates five or six passengers in the utmost comfort.

The 40 ft SPEED CRUISER

When you see this new model by Robinson you will agree that a real reason existed for adding this attractive design to the Seagull line. A large commodious open cockpit forward is protected by a rakish windshield. Entrance is gained to the cabin interior by a companionway. This cabin is a paragon of roominess and unrivaled luxury. Four berths, extra large lockers (and how handy they are on a cruise), an enclosed galley of excellent proportions with a completely fitted toilet are incorporated in the design. Aft of the cabin is the bridge deck, offering weather protection and extreme visibility to the helmsman. Driving controls are in easy reach and easily operated. Hall-Scott, Kermath and Sterling engines provide speeds up to 34 miles per hour—optional twin screw power affords a new degree of staunch dependability.

The 45 ft CUSTOM COMMUTER

This design embodies an entirely new conception of custom completeness aboardship—offers the ultimate in refined elegance and cruising comfort. Every detail, every luxury to gratify your fondest dreams of beauty is unstintingly provided. Here you will find value asserting itself in the meticulous handwork lavished on hull and cabin. You will discover this craftsmanship translated into a riding grace and buoyancy that leaves you with that sea-free feeling of boundless confidence and enthusiasm for something alive and perfect under foot. We urge you to write for the particulars on this boat—on all Seagull models for that matter. Candidly, this 45 foot twin 240 Hall-Scott powered custom commuter, available in single or double cabin design, is one of the most commanding boats afloat. Orders must be placed in advance to insure against the disappointment of delay.

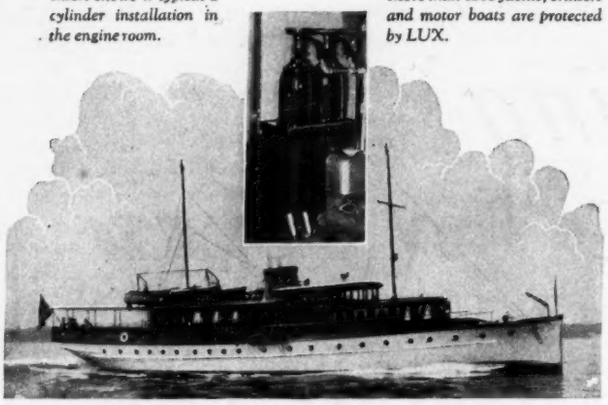
ROBINSON MARINE CONSTRUCTION COMPANY
Benton Harbor + Michigan

ROBINSON Seagull CRUISERS

All Boats Built by the New York Yacht Launch and Engine Co. During the Past Two Years Have Been Equipped with LUX.

Insert shows a typical 2 cylinder installation in the engine room.

More than 1200 yachts, cruisers and motor boats are protected by LUX.



Cruising Without Fears

TO no boat owner is there anything much more appalling than the thought of fire at sea. Even more serious than the loss of the craft is the risk to the lives on board and every yachtsman owes it to himself, his friends, his family to reduce the fire hazard to the minimum.

The worst type of fire at sea is a gasolene or oil blaze which sometimes starts in the galley or engine room. The LUX System affords absolute protection against such fires, harmless LUX gas, released from cylinders stored in an out-of-the-way part of the boat smothering the fire in a few seconds.

With a LUX System installed in your boat you may cruise in even the most distant and inaccessible waters without fear of fire.

There is a LUX System for every type of boat, from the smallest runabout to the largest Diesel yacht. In writing for further information give the type and size of your boat.

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX

Fire Extinguishing System

LABELED BY UNDERWRITERS' LABORATORIES

The Cruise of the *Alice*

(*Continued from page 61*)

members of the crew cleaned, painted, varnished and did everything possible to make the *Alice* look well when we should sail into Nassau after our long voyage in the West Indies.

The next morning, with the engine running perfectly, we passed through Current Cut and after an all-day sail over the Bahama Banks anchored in Nassau about 5 P.M.

This I consider the end of our West Indies cruise. Vincent Gilpin and Luis Pelaez, who had each contributed so much to its success, left here and in their place arrived my wife and daughter, Katharine, who have been with me so much before in Cuba and the Bahamas. They helped take the *Alice* to Florida and up the coast to Elizabeth City, where we laid up on March 21st, just 112 days after sailing.

At the present time I have an improvement which I believe will absolutely prevent a repetition of the trouble with the circulating water on the Bolinder, but I shall say nothing about the details until it has been tried out this winter.

Notes on Food Supplies

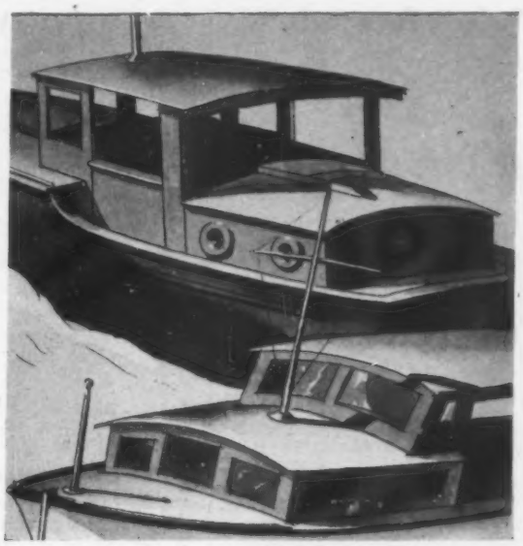
The question of food on an ocean voyage is a matter of the very first importance — again I would refer to the valuable advice given in "Deep Water Cruising," by Martin who, so far as my reading has gone, is almost alone in getting down to actual quantities required. When I began to make my list of supplies I found that even the data given by Martin, while most useful, was by no means complete. I hesitate to take the space, yet when I remember the time required to work out my list I believe that the following data will be found helpful to anyone who has had no previous experience in this matter.

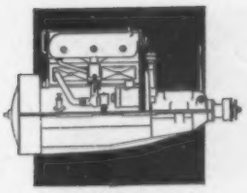
My starting point was to consider the cruise as divided into periods of one week and prepare a menu with quantities required for six for each meal in the week, the idea being that the menu could be the same for respective days in the following weeks. In actual practice we did not follow these menus exactly, but they at least gave a basis for determining the minimum quantities of food required over a given period, and while these menus may not appeal to anyone else, they do at least give a starting point and changes can easily be made without overlooking essentials.

The food list which is made up largely from these menus is based on the entire absence of ice as we wished to be free from the necessity of planning our cruise with any reference to ports where ice was obtainable. Having reached this decision, we decided we would not even start out with ice so that our entire ice chest could be used for supplies, such as potatoes, onions, carrots, etc. Temporary slats were installed across the openings so that the doors could be kept open for ventilation. This proved most successful and our fresh vegetables remained in good condition until they were all consumed, the potatoes lasting some six or seven weeks after they were stowed away. Of course, if artificial refrigeration were available, a very different selection of food would be desirable.

With this list as a starting point, a bill of supplies was prepared. This was carefully checked by Mr. Robert Jordan, who was largely responsible for the work of provisioning the *Nina* in the Spanish Ocean Race. Mr. Jordan's advice was most valuable. All supplies except fresh fruits, vegetables, eggs and meats were ordered from William H. Swan & Sons, 44 South Street, New York City, whose business is "ships stores" and "steam-

Select any Standard-ized Boat but . . .





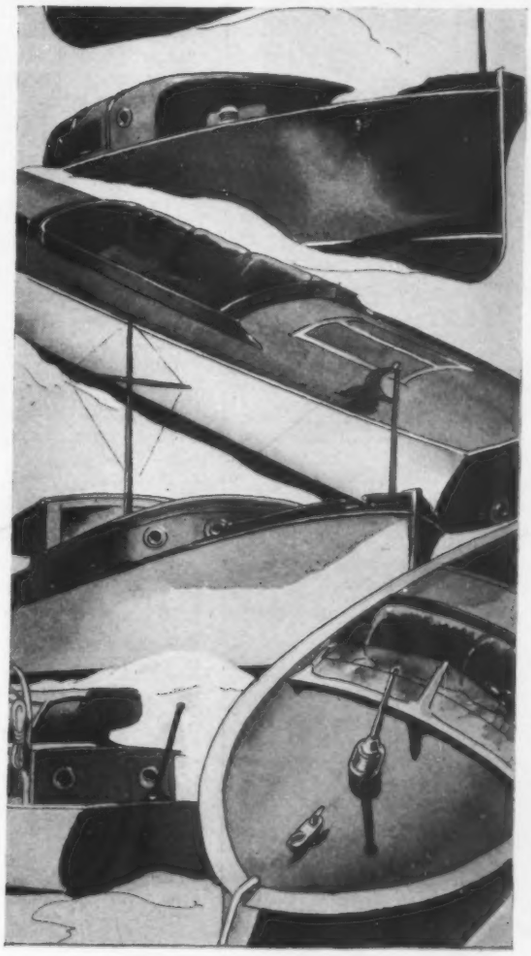
P. A. L. 4 cyl.
25 H.P. at 1200 R.P.M.

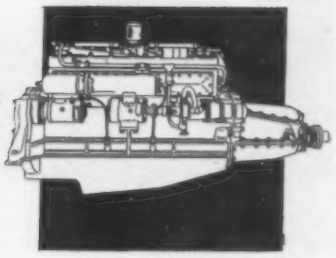
insist on a Palmer Engine

When you purchase an automobile you have no choice as to the motor. You are obliged to accept the motor whether you like some other make better or not.

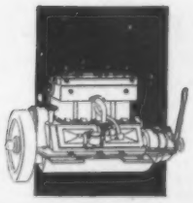
When you select a Standardized boat the situation is quite the reverse. You choose the boat you want . . . the boat that pleases you most in beauty, construction and layout. Any engine is not forced upon you. You reserve the privilege of insisting on the best marine engine available.

Insist that a Palmer Engine equipped with a Palmer Clutch be installed. It has an enviable record of performance to back it up. It is the choice of the pleasure-loving yachtsmen all over the world.

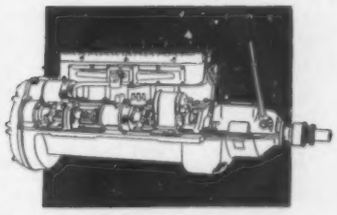




Lycoming, 8 cyl.
115 H.P. at 3000 R.P.M.



Little Huskie, 4 cyl.
15 H.P. at 1500 R.P.M.



P. B. 6 cyl.
40 H.P. at 1400 R.P.M.

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Over town or country, the PACEMAKER *is always the plane of safety*

Speed
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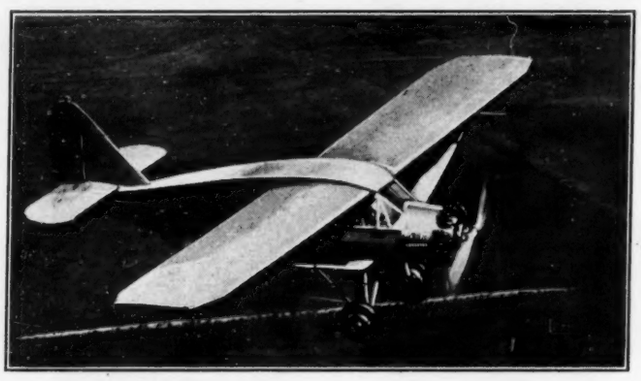
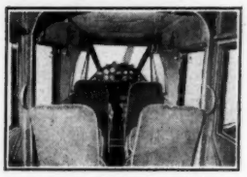
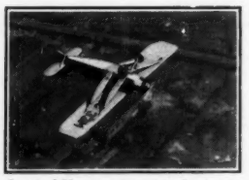
PACEMAKER *speed appeals to sportsman — readily convertible to float gear*



You want speed in your airplane, but speed only where it is combined with safety and efficiency. Consider safety foremost. Then efficiency, because it means safety plus performance. . . . The Bellanca *Pacemaker* speed of 145 miles an hour is as *fast* as you'll wish to fly. With six persons in the comfortable, quiet, beautifully-appointed cabin, secure in the knowledge that they are in the *safest* airplane built! Their luggage in the ample aft compartment. All told, a payload (with pilot) of 1,235 lbs., riding smoothly behind the *Pacemaker's* 300 h.p. Wright Whirlwind engine. Air-touring (or any sort of flying) in the Bellanca is most certainly an incomparable experience. Let us, or our distributors, anywhere, arrange a demonstration flight for you. Bellanca Aircraft Corporation, New Castle, Delaware.



Interior view showing four of the six comfortable seats, and luxurious appointments



Looping? You may not care to, but it can *be done* safely *in the* PACEMAKER

At the Bellanca factory is a flying field where piloting is taught by experts

Pacemaker Specification: Six-place cabin monoplane. Dual control. Luxurious appointments High speed, 145 m.p.h. Cruising speed, 122 m.p.h. Payload (with pilot) 1,235 lbs. *As a seaplane*, on Edo all metal floats: high speed of 130 m.p.h.; cruising speed, 110 m.p.h.; payload (with pilot) 1,235 lbs. Both types built under U. S. Dep't of Commerce Approved Type Certificate No. 129.

The Pacemaker Freighter: Dual control, 34 cu. ft. closed freight compartment, seat for 2 passengers and 11 cu. ft. baggage compartment. Payload, (with pilot) 1,745 lbs. Approved Type Certificate No. 245.

BELLANCA

ship supplies." We chose this firm because of satisfactory service in supplying Captain Hammond's *Nina* in the Spanish Ocean Race and Captain Iselin's *Atlantis* in her two months' cruise to Arctic waters. Many of the supplies were specially packed in tin boxes to protect them from moisture and the various detailed directions given by me were carried out without a single mistake.

The following is a complete list of the supplies which we took for six persons for one month.

Groceries

10 5-lb. pkgs. granulated sugar
1000 lumps Domino sugar, 6 2-lb. pkgs.
6 1-lb. pkgs. light brown sugar
24½ lbs. Gold Medal flour in cans
16 1-lb. pkgs. unpolished rice
4 pkgs. yellow corn meal
4 pkgs. A. J. pancake flour
4 1-lb. pkgs. macaroni R. S.
5 lbs. black beans in 3 cans
4 lbs. yellow split peas in 2 cans
8 lbs. white beans in 4 cans
4 pkgs. shredded wheat
2 pkgs. cream of wheat
6 pkgs. Quaker rolled oats
10 cartons pilot bread, 40¾ lbs.
4 cartons graham crackers, 39 lbs.
3 1-lb. pkgs. Swedish bread
20 1-lb. cans Maxwell House coffee
3 lbs. English Breakfast tea, ½-lb. tins.
10 ½-lb. cans Whiteman's chocolates, 2 doz.
2 doz. bottles Cliquot Club ginger ale
28 lbs. Star bacon
5 2-lb. cans pure lard, 10 lbs.
7 lbs. fancy prunes, 30/40
15 lbs. cooking prunes
4 pkgs. raisins
6 15-oz. jars figs, ½ doz.
4 Edam cheeses
4 boxes milk chocolate
1 1-pint bottle vinegar
1 qt. bottle of powdered malted milk

Canned Goods

8 cans Campbell's chicken soup
16 cans pea soup
16 cans vegetable soup
16 cans tomato soup
20 cans mock turtle soup
1 doz. cans No. 3 tomatoes, fancy
1⅓ doz. cans green peas, fancy
1⅓ doz. cans stringless beans
1 doz. cans Friend's baked beans
⅔ doz. cans lima beans
½ doz. cans asparagus tips
1 doz. cans Friend's brown bread
4 1-qt. cans pure maple syrup
1 1-qt. molasses
16 1-lb. cans cabin butter
9 doz. cans tall evap. milk
⅓ doz. cans sweetened rhubarb
⅔ doz. cans fancy cherries
⅓ doz. cans fancy strawberries
⅓ doz. cans fancy pineapple
⅔ doz. cans fancy grapefruit
⅔ doz. cans fancy pears
4 canned hams, 27 15/16 lbs.
3 doz. cans Libby's corned beef hash 2's
24 lb. cans R & R boneless chicken 2 doz.
2 jars chipped beef ⅙ doz.
4 cans crab meat
4 cans lobster RS 12 oz.
16 cans Portugal oil sardines 1⅓ doz.
1 doz. cans English kippered herring
4 cans shrimp
⅙ doz. cans Royal baking powder
½ doz. cans Vienna sausages
½ doz. cans Frankfurter sausages

Preserves and Pickles

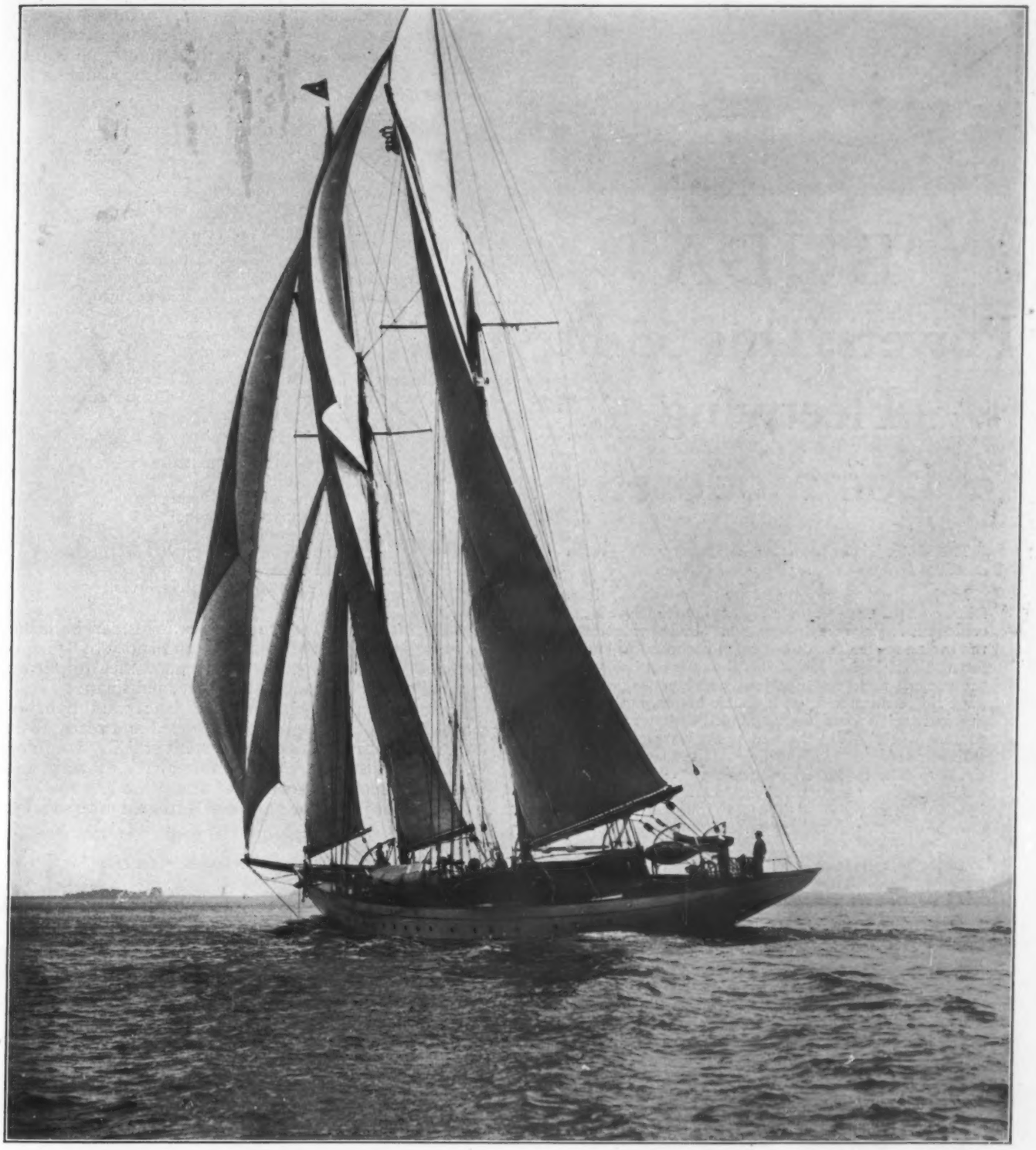
½ doz. jars Dundee marmalade
¼ doz. fancy raspberry jam
¼ doz. fancy strawberry jam
1 small bottle chutney
2 16-oz. bottles sweet mixed pickles
2 16-oz. bottles chow chow

Condiments

2 pkgs. table salt
½ lb. black pepper
¼ lb. paprika
¼ lb. Coleman's English mustard
½ lb. currie powder
2 2-oz. tins French's cinnamon
2 1-qt. tins pure olive oil
1 small bottle kitchen bouquet
1 bottle Lee & Perrin's Worcestershire
1 bottle Heinz's tomato catsup
5/6 doz. tins magic yeast
2 jars mayonnaise

Cleaning Compounds

12 cakes Ivory soap
4 cakes Sapolio
⅓ doz. large pkgs. Gold Dust
1 pkg. washing soda, 2½ lbs.
5 pkgs. Brillo
4 pkgs. Old Dutch cleanser
2 qts. Solarine
12 cakes "Grandpa's Wonder Soap" for salt water

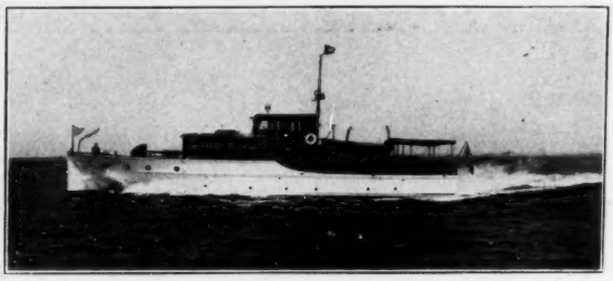


"STARLING" • WAMSUTTA YACHT DUCK SAILS MADE BY COUSENS & PRATT

When the 126-foot steel schooner "Starling" was new she tried out some other kind of sails. Now she is cruising down off Panama with Wamsutta Yacht Duck. A rather expensive way of selecting the best suit of sails for any boat, don't you think?

WAMSUTTA YACHT DUCK • HOWE & BAINBRIDGE • 220 COMMERCIAL STREET, BOSTON

WAMSUTTA MILLS, FOUNDED 1846, NEW BEDFORD, MASSACHUSETTS • RIDLEY WATTS & CO., SELLING AGENTS, 44 LEONARD ST., NEW YORK



BUDA Powers This 55-Ft. Fleetwing Commodore

The Motor Yacht IBEL is a handsome craft — with excellent arrangement for a boat of its size.

In the extreme forward end are the crew's quarters, followed by a large, completely equipped galley. Next comes the engine compartment with dining salon over the engine space. The dining salon occupies the entire forward deckhouse. Aft of the dining salon is located the owner's and guest quarters, which consist of two large single staterooms with double berths, bathroom, and extra toilet room, both equipped with hot and cold running water. Aft of these come the luxurious double stateroom for the owner, which extends across the entire ship. These quarters are replete with all the conveniences to be found in the most luxurious craft. The spacious after cockpit is accessible from both the deck and the owner's quarters, and accommodates four large lounging chairs. The combination pilot house and lounging room is roomy and accommodates four to six persons.

The power plant consists of two Model GMF-6 BUDA engines with reduction gears, which drive the IBEL at a sustained cruising speed of 13½ miles per hour.

BUDA ENGINES are recognized everywhere as dependable power plants. Why not secure complete information now regarding BUDA? Catalog No. 580 gives full particulars on all models and will be sent promptly on request.

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THE BUDA COMPANY
Established 1881
HARVEY (Chicago Suburb) ILLINOIS

BUDA MARINE POWER

In addition, we purchased at Elizabeth City, N. C., where we fitted out, the following lists, including fresh meat sufficient for three days, which we believed would keep out of doors for that length of time (and it did). No allowance was made for the meats in ordering our main supplies.

FRESH MEATS, EGGS, ETC.

36 doz. fresh eggs	1 side of lamb
3 lbs. fresh table butter	2 fowl
5 lbs. salted cooking butter	4 lbs. sirloin steak

FRESH VEGETABLES

100 lbs. potatoes	6 carrots
20 lbs. onions	2 small squashes
30 lbs. beets	2 large turnips

2 heads cabbage

FRESH FRUIT

2 crates of grape fruit	8 lemons
2 crates of oranges	3 doz. bananas

MISCELLANEOUS

4 cartons of safety matches
5 lbs. cotton waste
25 lbs. fine salt for packing eggs
2 gals. denatured alcohol
25 gals. kerosene
300 gals. Diesel engine oil 28°–32° Be.
300 gals. fresh water
100 lbs. Ford Charcoal Briquettes

The crates of grape fruit and oranges can be lashed on deck and protected from rain and spray by tying on covers of enamelled cloth. It is a good idea to put one crate of oranges within reach of the helmsman.

Among the best canned food is canned ham — a whole ham with bone removed, boiled and ready to eat as it is, or to fry. Another excellent standby is Libby's Corned Beef Hash. A can of this nicely browned in a frying pan makes a good meal at any time.

The following data has been gathered from various sources.

MINIMUM REQUIREMENTS PER MAN PER DAY

		Source
Water	1 gal.	British Board of Trade
Bacon	¼ lb.	Howard
Eggs	2	Martin
Butter	¼ lb.	Martin
Sugar granulated	¼ lb.	Martin
Sugar lump	6 lumps	Howard
Coffee	⅛ lb.	Martin
Sea biscuit	½ lb.	Howard
Evaporated milk	¾ tall can	Howard

The eggs can be preserved according to the plan described by E. G. Martin, first coating them with lard and then packing in salt in any suitable receptacle, such as a wooden box or a glass or earthenware jar. In this way an enormous number of eggs may be stored in a very small space.

These NEW HACKERCRAFT MODELS 1930

RARE distinction has deftly touched the handsome series of Hackercraft for 1930. No other boats built combine such perfect beauty and grace with such flashing get-away—provide such tangible evidence of riding security—so much real speed and performance. John L. Hacker, N. A., is still the world's outstanding designer and builder of fine runabouts. His, the basic knowledge of naval architecture . . . His, the honor of conceiving the V-bottom design and perfecting it . . . His, the advantage of 36 years spent designing and building speed boats, racing hulls and cruisers. On this premise of fitness is moulded the character and tradition of Hackercraft leadership. Qualities that have won for Hackercraft Europe's runabout championship—an illustrious list of American victories where owners themselves drove their boats without factory aid, or factory interference to a series of undisputed "firsts". Write for the catalog—"Hackercraft for 1930". It tells the complete story of these beautifully built boats.

Regional Distributors:

NEW YORK: 5th Avenue at 15th Street
BOSTON: 1043 Commonwealth Avenue
PHILADELPHIA: 102 South 4th Street
CHICAGO: Motor Boat Mart, Navy Pier

Attractive dealer arrangements available for unrepresented territory

HACKER BOAT COMPANY

538 River Drive + Mount Clemens, Michigan

The 35 mile 24 footer is a smart 9 passenger genuine Honduras mahogany runabout of exceptional sturdiness, identical in beauty to the larger models. Price $3150.

The new 38 foot 42 mile an hour cruiser-commuter is twin screw 200 powered, sleeping four with room for 20 day passengers. $17,000.

The 26 and 30 foot Hackercraft are conceded America's finest runabouts. Speeds from 40 to 44 miles per hour. Priced at $4475 and $5500.

(Sedan and collapsible tops for these models at extra cost).

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MOSSE'S NEWEST
TABLE DAMASK

"Renaissance Oblique"

A rich and unusual table setting is achieved with any of the three color choices available—Ivory ground, with design executed in Nile Green, Maize, or Apricot.

Set for 8 covers	98.00
" " 10 "	104.00
" " 12 "	110.00

One dozen oblong, dinner-size napkins are included with each set.

MOSSE
INCORPORATED
750 FIFTH AVE
NEW YORK

DEC
1929

SPECIALISTS IN LINENS

Tiercel, a Modern Fast Cruising Cutter

(*Continued from page 64*)

shown, by which the spar can rotate freely upon a steel spindle which is a machine fit in a hard brass tube. The arrangement works very well, indeed, and combines great strength and lightness.

I was not able to sail in *Tiercel* upon her maiden voyage from the Firth of Forth to the Clyde, but I joined her there for the passage south to Devonshire, and, as it happened, we had an opportunity of seeing the ship most thoroughly tested. A very short sail in a moderate breeze and smooth water was all that was necessary to prove that she was lively and well balanced upon her helm. We sailed close-hauled down the Clyde with a pleasant breeze until we came to Ailsa Craig, a huge rock, almost a mountain, which rises sheer out of deep water. We sailed close along its southern shore and there we got some very violent puffs which showed us that *Tiercel* was as "stiff as a church."

After we had passed the island the wind gradually failed and we lay becalmed all through that night. Next day the wind came in from the south, thick with rain, and so we put into Peel harbor in the Isle of Man. Here we were perfectly sheltered from the south and quite exposed to the north. The night and the early morning were calm, but at breakfast time we got wireless warning of a northerly gale, and no sooner had it come than a faint northerly air came creeping into the harbor. It was no place in which to linger, so we cleared out at once, and within an hour we were streaking away south at a great speed with a reef down. The wind hardened steadily and soon raised a steep following sea, so that after a while we lowered the mainsail and ran on under the staysail while the wind freshened all the time.

After a while, perhaps owing to the turn of the tide, the sea began to break really badly, and we should have been glad of oil bags had we had any. We ran on at a great speed considering our rag of sail, and once we were pooped, fair and square over the stern. There was not enough water on deck to do any harm, but it was perhaps six inches deep or so in the steering well, just enough to test the non-return valves in the drain pipes.

After a while the wind dropped and we set the mainsail. During the next twelve hours we sailed exactly one hundred miles, thus averaging eight and one-half knots. The wind was about two points free, and had it not been for the log readings we should have entirely underestimated the speed, for she made no fuss whatever. I have very little doubt that the ship would do eleven knots under favorable circumstances.

The remainder of the passage was easy sailing until we reached Start Point, which will be a name familiar to those who have sailed in the Fastnet Race. Here, although we had only twelve miles more to go, the sky to windward looked so threatening and the wind was freshening so fast that we decided to reef. We were running with the boom well off, and we found we could reef as we ran without the slightest difficulty. It was only necessary to take the weight on the topping-lift, ease away the halliards, haul down on the reef pendant, overhaul the reef lacing, and the job was done. It is a fine thing to be able to take in a reef properly like that without having to haul in the main sheet, and without anyone having to leave the deck. This reefing before the wind was an eye-opener to me and it was this experience which finally converted me to the Bermudian sail for cruising.

Off Brixham Breakwater we made a tack and so we fetched the harbor and picked up a trawler's mooring beneath the shelter of the cliffs. *Tiercel* had proved herself beyond question, and we knew that all the care and thought which had gone to the building of her had not been wasted. She is a ship after one's own heart.

Illustrated at left is the "S-38" Sikorsky, a sister ship of the Amphibion flown by Col. Lindbergh on his recent Pan American cruise. Powered with two Pratt & Whitney "Wasp" engines, this ship has a speed of over 125 miles an hour with full load.

< <

This map shows the route covered by Col. Lindbergh, technical adviser of Pan American Airways, Inc., on his recent flight inaugurating mail service to Paramaribo, Dutch Guiana, via the West Indies. Returning, the Colonel crossed to the Canal Zone and on up to the Yucatan peninsula, exploring Maya ruins perhaps never before seen by representatives of our civilization.

Again Lindbergh Opens a New Mail Route

Whenever flying and landing conditions are particularly difficult you'll find the "S-38" delivering just a little more performance than is expected of her. Her low landing speed gets her into small bays and fields... and her fast take-off climbs her out of them. There's plenty of reserve power available. She will fly and maneuver on either engine. And her ceiling is 18,000 feet.

Truly a wonderful ship for exploration. And for business or for sport... an ideal combination of luxury and utter dependability.

With the "S-38" Sikorsky Amphibion

Trace the route of Col. Lindbergh's flight on the map above, and you will be impressed with the great distances and the varied flying conditions encountered. Within the last few weeks over 7000 miles of the route were covered in a Sikorsky "S-38" Amphibion . . . a ship whose sturdy construction, luxurious comfort and brilliant performance are already familiar to patrons who have flown over those passenger routes of the Pan American Airways where they are used.

SIKORSKY AVIATION CORPORATION

Bridgeport, Connecticut

DIVISION OF UNITED AIRCRAFT & TRANSPORT CORPORATION

INTER-OFFICE C

Avoid Ver

To Mr. John Doe,

Subject Cruiser for Florida

About a month ago you
Cruisers now on the market ar
Florida this winter. The Corsa
above everything else I have se
of comfort, beauty and utilit
sound investment. This boat
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modern as tomorrow, in Trenton
production basis. It is a cruis
36' long, luxuriously finish
the beam is 9' 10", draft 2' 8",
There is a large cockpit aft,
exceptionally roomy one forwa
bunks in the cabin accommodate
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cruising truly enjoyable. Th
Scripps Model 202-200 h. p.
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bridge amidships or from a conv
remote control wheel forward
no more suitable craft at anywh
price of the Corsair. It is ide
fishing and off-shore cruisin
arrange a demonstration at yo
a photograph of the Corsair.
Corsair Boat Co. by writing t
1030 Buhl Bldg., Detroit.

Richard Roe,
Secretary

What I Told My Boys in the Twilight

(*Continued from page 53*)

and it was secured after all the rules of the art, with a smooth skin from bunt to leeches.

And then to sense that the ship once more lay quite still, and to know that at night one would not be turned out with hard words because the rancid oil would not burn in the side lights and binnacle lamp.

Music came out to us, quite distinctly, from ashore. Presently, thousands of lamps were lighted in the town which lies in horse-shoe form against the ridge behind, and fireworks were set off in great profusion. The odor of flowers and hay stole out to us. Yes, this was real living! And then there would be letters. Just to think, all of two months had gone since we had parted!

The next morning the broker's clerk came out with the letters. The mate gave them out. Old Schmidt, the negro cook, and the two English sailors, Ben and Ned, said that they did not expect any, and so they were not hurt when their names were passed over. On the other hand, there were others in the flock that had gathered aft, who watched and listened more and more anxiously while the pack in the mate's hand became thinner, and who finally drifted forward again, disappointment showing both in their faces and bearing. What could be the matter at home? Were they sick or dead, the old folk? Or had the girl forgotten them? We lucky ones who had one or more letters, went each to his quiet corner in order to be quite undisturbed near his dear ones. I wonder if it was the same with the others as with me? My hand shook and my underlip began to quiver as I read the loving words and good news. That was nothing to be sorrowful about, but so help me if my eyes didn't run over, till Mother's writing became almost unreadable. It was the first time that those sluices had sprung since my departure; everything at home suddenly stood out so living clear and dear, I had never known how unspeakably dear.

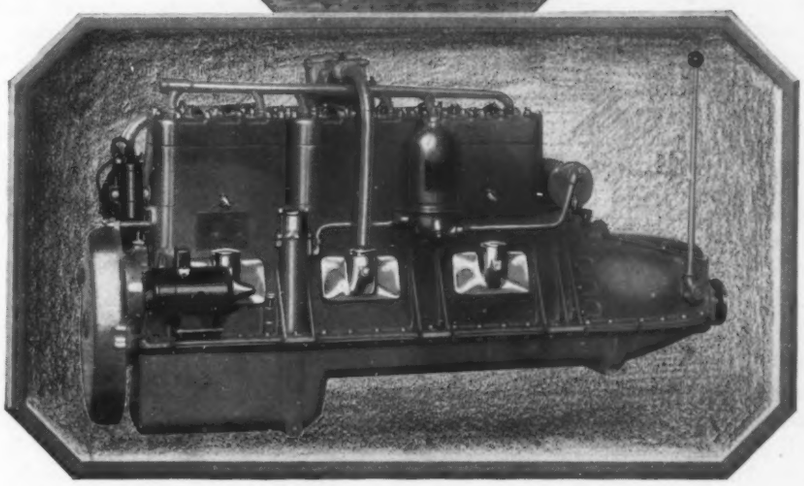
After a little, the work went on as before, only perhaps with a somewhat more kindly aspect in tone and expression than usual. But, then, it was a fête day for most of us.

The ship was now fore-hauled farther into the harbor and both anchors laid out, while aft she was secured with chains and heavy lines to some pile heads, stout dolphins, so thick that I have never seen the like before, nor since, for it was said that it could blow preposterously hard, both in from the bay and down off the mountains. Yet who would believe it, so smiling and sunny as it all appeared to be.

The place was filled with ships from all corners of the world, but most interesting to us were the Mediterranean-men with their many variations of ponderous rigs and hulls. Their crews shouted and gesticulated as though they were ever scolding; each man seemed to have as much say-so as the next, so that they all seemed like pirates. They were dressed in the most lurid hues, blazing red shirts, light blue pantaloons, long colored sashes, and always with monstrous large sheath knives in their belts. They could go aloft in the rigging like monkeys, and swim like fish. Nor were they satisfied, as we others, to go overboard from the rails, but must lie aloft, at times way up to the tops'l yard, and then take off with their legs crossed. That was a dive of half a hundred feet, but up they came again, and before we left Trieste several of us had tried it from our fore-yard. I did it just once but went so deep that it made my ears sing. We were not allowed to go in without swimming suits, as there was considerable bathing by the people of the town.

Men and women swam together, and often we rested on the anchor chain with one, two, or three women who

New Corsair Thirty Six
SCRIPPS POWERED



"Here is a finer and greater Corsair—thirty-six feet of pure pleasure that fairly sings the spirit of the sea from hull to hatch and plank to pennant. It has the same stout heart that has won an enviable reputation for other Corsairs; the same seagoing swagger that has set them apart from anything else that floats."

THE selection of Scripps model 202 by Corsair, to power their new "Thirty-Six", again emphasizes SCRIPPS as the most favored motor for standardized craft where fitness and quality are paramount to price.

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Described and illustrated in our 32-page catalog which contains full information on all Scripps 10 models—15 to 200 H. P. Send for your copy.

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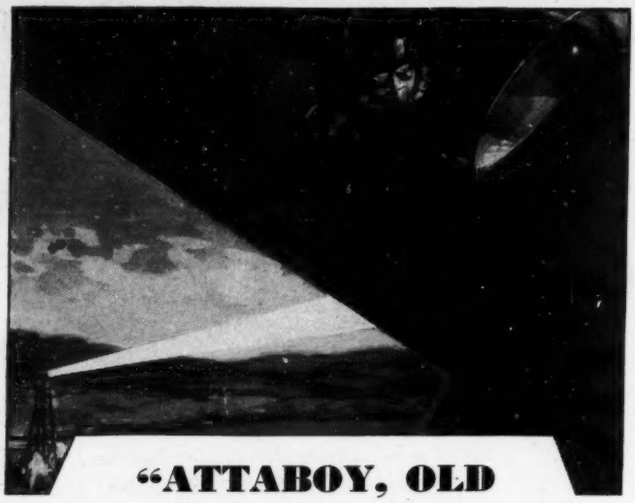
+ THE MOTOR THAT CROSSED THE ATLANTIC +

WORLD NEWS STORIES OF THE KOHLER ELECTRIC PLANT—No. 9



"ATTABOY, OLD
FAITHFUL!
TIME TO LIGHT UP"

FLYING the air mail to Cheyenne. 'Way down below, the gathering dusk is graying the ground. It will be dark soon, and the postman of the air will need his beacons to show him the way.

There's a beam now, just flashing out. There comes another, twenty miles away. See them string out across the desert—Uncle Sam's land lighthouses, marking the skyways for the Air Mail—lighting them with electricity, though the nearest central station, the nearest power line, be a hundred miles away.

From sunset to sunrise, night after night, in blistering heat or sub-zero cold, hundreds of these life-saving beacons are lighted by small Kohler Electric Plants, generating "city" electricity on the spot with an efficient certainty that is the constant marvel of their caretakers.

"City electricity" for yachts

All in all, over six hundred Kohler plants are working for the U. S. Air Mail, daily adding to the fine reputation that these trusty machines have earned in many fields of service.

Kohler Electric Plants have made a particularly fine record among yachtsmen. Marine models generating standard 110-volt current and eliminating the usual storage batteries afford every convenience of city electricity. Other models are adaptable for use with existing battery systems. The coupon will bring detailed information about models from 800 watts to 10 K. W.

KOHLER OF KOHLER
Kohler Co. Founded 1873 ELECTRIC PLANTS Shipping Point Sheboygan, Wis.
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Kohler Co., Kohler, Wis. V. 12-29
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City..... State.....
Use in which interested.....

were quite friendly and conversed without a bit of embarrassment. In time we came to know nearly all of them, as we lay near two of the largest bath-houses having probably more than fifty dressing rooms in each of them. Small boats ferried out to the bath-houses.

One evening about seven o'clock, while there still were many in the water, one of the so-called white squalls came suddenly and without apparent warning. First we saw a dust cloud over the high land along the shore, and shortly after a peculiar smoke on the water. There scarcely was time to take in the awnings before the weather broke upon us. And good Lord, how it blew! Then the sea got up, first short and steep, and after that, longer. Now we understood why we had to be moored so securely.

The skiffs which had not been able to make the beach from the bath-houses before the squall broke, and dared not attempt a landing, sought shelter with us and the other ships. By this time our people were out in the ship's boat and towed several of them alongside. In a short time the cabin was filled with exhausted and frightened men and women. It also rained and the air cooled off with extraordinary dispatch. The blow lasted but half an hour, yet it was some time before the sea fell so that it was well toward midnight before our involuntary guests left the ship.

So our ship became very popular after this affair, and the good people of the town were very friendly when later we came ashore and saw them in the public gardens where there was music and fireworks and unbelievably inexpensive servings of coffee and chocolate with excellent cakes. But almost never beer or wine, let alone the stronger drinks.

In the mornings one found no end of fruit in the market, while along the quays lay boats by the score, laden with peaches, apricots, oranges, grapes and other refreshing eatables. There were still some shillings left over from my travel money from home, and these were exchanged as quickly as possible for florins, kreutzers, liras and solders in the veriest ugly bits of paper, some of which were worth no more than five or six øre (about one cent) apiece. Actually it was rare to see silver money, but we could buy fruit with these dirty paper scraps, and that was the main thing for us.

In Trieste we changed captains, at which most of us were not so happy, now that we knew the "Old Man." Though it was said that the new captain, who as a matter of fact had skippered the ship before and was related to the owner, was a fine man and friendly, we were presently to find out how decent he was. As for me, at any rate, I was not too enthusiastic over the change, nor was the first mate either; he didn't say it, exactly, but it lay in the air.

After discharging our cargo of saltpeter, we took in a load of oak staves for Bordeaux. Our black cook, Sam Slick, who was taken ill, was brought ashore and left behind in the hospital. In the meantime, in order not to expend the pay of the hand short, among the crew — which is according to the law in the event of going to sea short-handed — the captain signed on a boy at four rix-dollars a month.

This boy came from Altona and was named August Ludowitzi. He had deserted from a Blankenasie schooner the evening before she had sailed from Trieste. The next day the police had found August vagabonding outside the town, and had brought him to the Danish consul. As Altona at that time was Danish, the consul arranged matters with our captain and the boy was brought aboard. So the expense of sending him home was saved and our captain got a cheap substitute for Sam Slick.

August, who had just turned fifteen, was on his first voyage as cook-boy with the Blankenese. But he had

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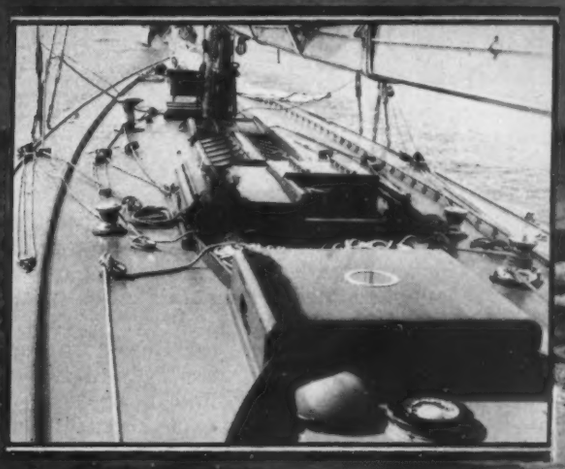

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SHUR-STOP always stands guard. When fire strikes, SHUR-STOP acts . . . at the start . . . whether you are aship or ashore, above decks or below. Automatically . . . by itself . . . SHUR-STOP goes into action at almost the first tongue of flame.

SHUR-STOP has no mechanical parts to fail in a crisis. Cannot evaporate, jam or corrode. Its established record of over 90% efficiency on nearly 4000 fires stands unchallenged.

SHUR-EX
Automatic For speed boats Will stand any amount of "pounding" $7.50 De Luxe Chromium Finish $10

This is the extinguisher which saved the yacht "Canvas Back" from destruction after a severe explosion . . . which now guards the luxurious craft "Tech," "Corsair," "Fankwai" and many others.

No other extinguisher at anything like SHUR-STOP's cost, gives such certain, such dependable protection . . . not alone for your boat, but for your home, business, every property you own! Yet, SHUR-STOP costs barely a third as much as the old-fashioned, "you-must-be-there-to-use-it" type of extinguisher.

"What Every Yachtsman Should Know About Fire" is a booklet every yachtsman should read. Write today for your complimentary copy.

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been so ill-treated that he had jumped ship rather than continue on board the schooner, and had left all his goods and chattels behind, but for a small bundle in a red bandanna. Really, he was a smart boy, but impertinent and born squint-eyed. Our crew straightway christened him "Schele" (squint-eye) and Bruder Witzig (Smart Alec), though I was mightily pleased to have him for a shipmate. No matter how squint-eyed and fresh he might be, we soon became friends, for we were of the same age and on an even footing so far as seamanship was concerned, and we stuck together for two and a half years, until our ways parted. From him I learned the choicest Low-Hamburger any boy could wish, and it was my luck very soon to get my German grammar so bungled that I never could manage to straighten it out later. At that time it was looked upon as almost indecent to speak High German on board, and if that happened one quickly heard, "Well now, you up-and-down lubber, come out of it, you dunder-head, till you can speak Plat-Dytsch."

This was partly because the seamen from Slesvig and Holstein, together with those from Hamburg and the country which lay to the west could not stand for the Prussians, who were of the opinion that they alone might speak High German, and partly because those who came from the better class were not popular among the sailors. I was foolish enough often to wish that they did not know other than that my father might be a cobbler, the same as old Ludowitzi, August's father. In those days the men were not very gracious to us boys, and it was some time before we dared stand up to them when they hounded us too badly. As a matter of fact, we were much more afraid of falling in disfavor among the sailors than the officers. All those of the ship's company who were not down on the papers as able seamen were "boys," even though they might be twenty-five years old and just as efficient as the "able" ones who must be addressed as "Thee" and "Thou" by those who ranked below them on the muster-roll.

Except in connection with his work, a boy could not address a sailor, nor smoke in the quarters, nor help himself to tea or coffee before the men had theirs, to say nothing of eating first. If he joined in the conversation — even among the ordinary seamen and downwards — it was, "The dog is talking under the table." Should they catch us reading anything but the psalm-book or Testament when we were off watch, we heard, "If you have nothing better to do, then we'll find some work for you." Which they did!

(*To be Continued*)

A Stormy Day on the *Stornoway*

(*Continued from page 48*)

seas. But the vessel rode like a duck — roll, she certainly did roll — but nothing heavier than spray came aboard, and never at any time were we below our course.

About this time the Coast Guard at the entrance to the canal launched their cutter, but quickly put back and substituted the big power boat, as the captain afterward told us it was blowing too damn hard. We saw them for the first time astern about three hours later, appearing on the crests and disappearing in the troughs. Presently the life boat came abreast to leeward.

"All right?" yelled the captain. "Yes," said Nick.

"Don't believe I could tow you in this sea, anyhow — but we'll stand by. Where're you going?"

"Provincetown — where are you?"

"Came out after you; but seein's it's only a few miles to Provincetown, we'll go along with you. You might part something."

At this time Nick was standing by the lee shrouds,

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The OIL EVERLASTING

This remarkable new Marine Motor Oil has been on the market but a few months, yet it has jumped into instant popularity with all those having to do with the lubrication of Marine Motors.

It possesses the following necessary characteristics:—

1 — **High resistance to oxidation**
2 — **Low Carbon and gum-forming qualities**
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It is approved by leading Marine Motor builders. In justice to your motor you should use GULFPRIDE.

In sealed tins only

Let us send you a free sample vial on request

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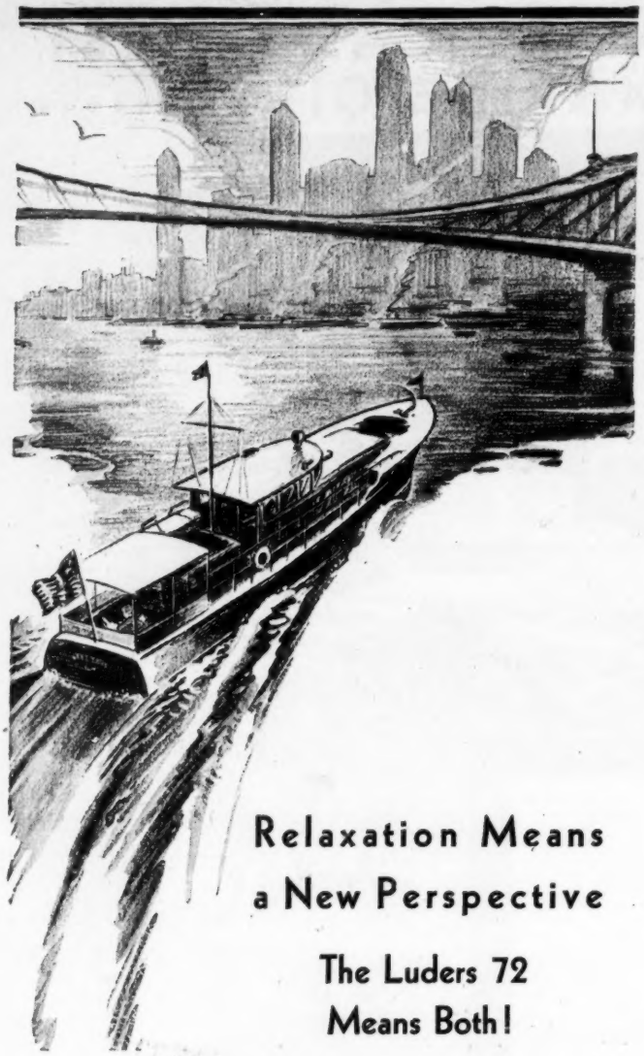

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And the Luders 72 is so completely equipped...so luxurious in appointment ...that she is as ideal for cruising as commuting. She sleeps six, has running hot and cold water, shower, galley, roomy crew's quarters, ample afterdeck, electric windlass, generator, and Frigidaire.

Let us show you plans and specifications now for next season. Write or phone for appointment at your convenience.

LUDERS MARINE CONSTRUCTION CO.

STAMFORD, CONN.

knee-deep in solid water. With a three-foot freeboard, the *Stornoway* was rolling plenty.

So we jogged along, and they jogged along. Finally the Coast Guard captain decided that if he could pass us a line we would both get there a lot sooner. That was all right with *Stornoway's* crew, as evening was drawing on, with Provincetown still some miles away, and it was getting colder — if possible. So the life boat ranged to weather of us and passed a line, and away we went. Now, the *Stornoway* draws six feet with her big iron shoe, but from the Coast Guard boat they could see that shoe every now and again. When an extra big comber would appear, the captain would head the life boat up and signal us to head into it; but after seeing how well she rode a couple of them, held his course into Wood End. We dropped both anchors at about 8:30 o'clock. Cold? Yes, and tired; but greatly pleased with the seaworthiness of our able little vessel.

For she had really done a fine day's work. Not only had she done everything that was asked of her, but had done it without a much-needed storm trysail. (Be it said here that a reversed topsail is only a fair substitute for a trysail.) And she had stood up to her task like a lady. In harbor, a trial of the pump sucked air on the first stroke, and she had not strained a timber nor parted a rope yarn. The sister-hooks on the preventer backstay, however, had been pulled out straight on the run up the coast from the canal. In the words of Connolly's Gloucestermen, it *was* "a jeesly blow."

Across the Atlantic in *Carlsark*

(*Continued from page 71*)

our first sight of these fellows. What husky men and gear!

Monday morning, July 22nd, saw everything ready for sea. We left at noon, under power, trying the log for accuracy. We found it was best with a 60-foot line, although somewhat jerky without a balance wheel. However, the readings along the trip checked with the noon sights, and we were well satisfied. Later, a light air threatened to fill our sails, and by sundown we had picked up a good breeze and were rolling merrily along. Once well offshore, a course of 120 degrees was set, which gave us a fine wind on the starboard beam. The water became a dreamy azure blue; the whole atmosphere was one of unreality. Sailing that night was great, following the path of the moon. Our system of four three-hour watches, 8:00 P.M. to 8:00 A.M., made night work no chore. Sailing near home was never like this!

All preparations for the sea voyage were now complete, and we never suspected it. Weagant's explanation was that we were well prepared for a coasting trip offshore, and we believed him. Let us briefly review the preparations:

FOOD. There were canned goods sufficient for a month or longer, and ten loaves of bread to last two weeks (it moulded before we could eat it all). There were oranges, bananas, and lemons, which lasted till just before we reached the Azores. Fresh meat and green vegetables we laid in cautiously, for fear they would not keep. A sack of new potatoes kept perfectly, and made one of the best bits of deep sea food. Our 350 pounds of ice lasted a week, and the last of the fresh meat went for stew on July 31st. After the fresh food had been exhausted, there was an abundance of tinned meats, French ship's biscuit, potatoes, canned goods, and evaporated milk. On the day that the last of our fresh milk began to turn, I made it do another day (for cereals) by the addition of sugar and vanilla. A Protane compressed gas stove provided two good hot meals every day.

NAVIGATION EQUIPMENT. Sextant, Bowditch and

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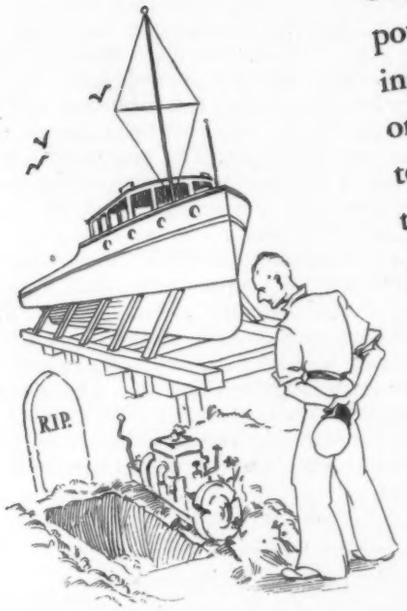
Many a tight little packet is just waiting for a return of youth and pep in the guise of a new and modern power plant. And it's not a bit too early to start thinking about it for next season. This time, pin your faith on a Universal. Whatever the size you need, from six to more than a hundred horsepower, there's a Universal to meet your needs: dependable, super-powered, economical, trouble-free, and up-to-the-minute in design. Our catalogs will give you an idea of what you can expect from a Universal in your own boat.



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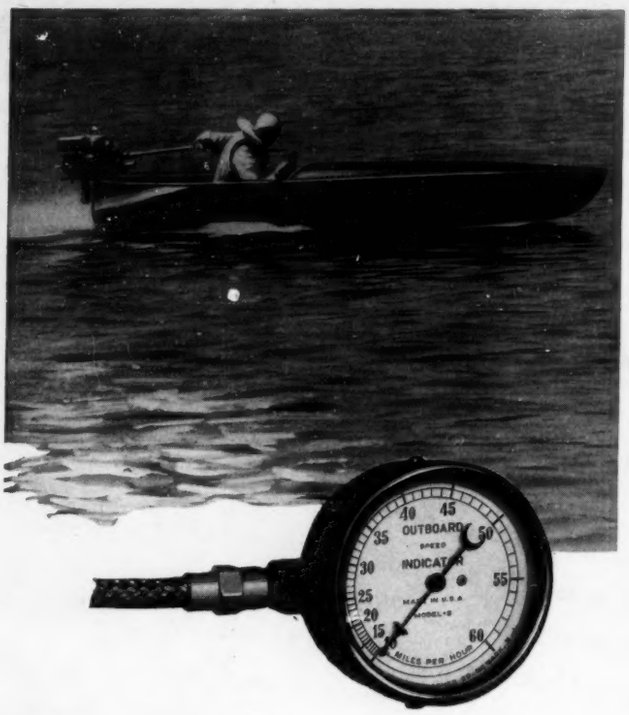

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It shows your speed under all conditions of load, trim, carburetor and spark adjustment, etc. And it helps *keep* your boat up to its greatest efficiency.

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Henderson on navigation, and innumerable charts. Waterbury ship's clock for local apparent time; stop watch for noon sights; Tiffany ship's clock for chronometer.

SAILS. Jib, mainsail, mizzen, mizzen staysail, "Saturday Night," storm trysail.

GENERAL. We had two radio receiving sets, short and long wave, for programs and Arlington time signals. Until Sydney we listened regularly to programs from the home stations and Montreal. After Sydney, with difference in various times, we seldom tuned in at the right moment for Arlington, and being full of other thoughts, seldom tuned in for entertainment. Ground tackle consisted of a 150- and an 80-pound anchor, with plenty of line. In case of a bad storm there was the hurricane cover for the deckhouse. Plenty of spare rope and boatswain's stores made us secure on that matter. For the motor, a Fay & Bowen "Gobest," we carried 85 gallons of gasoline. *En route*, I made a big sea anchor. One of our ring buoys carried a water light.

So here we were leaving Sydney, well prepared for a long journey, and in ignorance of the fact that we had been "shanghaied." On the Banks we ran into the Canadian fishing fleet. "Where bound?" some of them shouted. That question almost proved fatal to our captain's carefully laid plans, but the fishermen did not go into embarrassing details. We had been shown only such charts as were good for us. The conspirator took noon sights, and faked the results when reporting to us. There must have been some incriminating charts in the locker, for he chased Schoales away on one occasion. Rummler said the compass course of 120 degrees looked a bit too far south, but the skipper explained that the compass had not been properly compensated. After that, his navigation was not under question. To make us think that the boat was close to the mainland, he showed us the distance from Sydney to Cape Race — 570 miles, he said, whereas it is but 290. During his watch each night, he pulled in the log, thus beautifully deceiving the whole crew. And so we all strained our eyes for Cape Race.

(*To be continued*)

We Launch the *Tuaraatai*

(*Continued from page 47*)

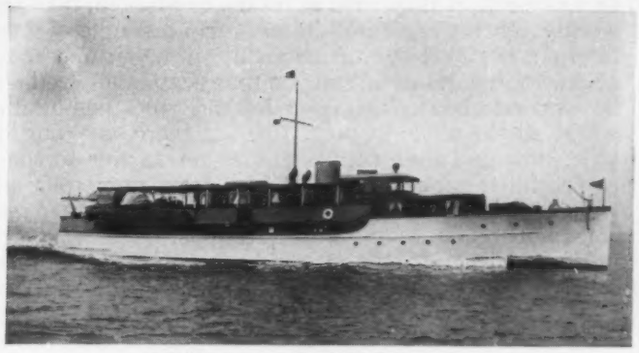
them up, even then having no great amount of room on either beam to spare. We're through the pass. The rolling stops. It's smooth in the harbor. We are the point of a wedge that cleaves the quiet water. We throw a wake that bounces high a few canoes on their way out to the reef to fish. We fling them a cheer and they fling it back. They enjoy it as much as we do.

The engine throttles down. The clutch is thrown out. We settle down in the water and slide up alongside the stone quay that lines the shore. A line is thrown ashore. Plenty of willing hands to seize it. The noose is slipped over the muzzle of one of the old cannon set in the ground. Many hands and feet stave us off so that we do not rub our sides and paint against the rough stone. Our erstwhile crew clambers ashore to allow themselves to be congratulated by friends who spring up from nowhere to do the congratulating.

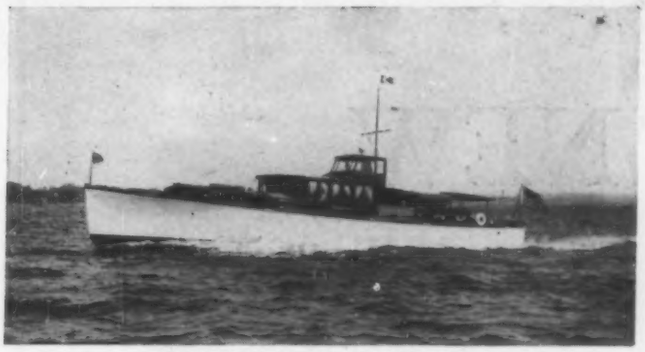
A good run. A little over an hour for the twenty-odd miles. Mr. Philips comes out of the engine room, sits on a bench in the cockpit, mops his brow and is well pleased.

We do the few errands that were our excuse for coming over to Tahiti. Those over, there's nothing to do but return. It's more fun flying over the waves than sitting here tied up to an old cannon.

As the motor starts up our passengers come clambering back aboard. There are no orders delivered aboard this craft, not even an "all ashore that's going ashore."



SOLANA . . . for Mr. W. C. Robinson



RED WING . . . for Mr. G. B. Hoppin

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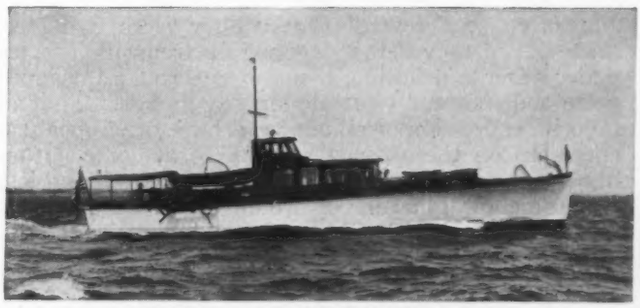

MOHICAN . . . for Mr. Philip Johnson

JULIE M-II . . . for Mr. R. M. Smith

ALIDA . . . for Mr. B. H. Borden

VIXEN . . . for Mr. Adolph M. Dick

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Those on board when we start will go to Moorea. Those on shore will, if they wish to return to Moorea, take the weekly schooner back on its next trip a couple of days later on. Lest you be worried about our helmsman being aboard or not, let us advise you that gentleman need not be worried about. Imi never left his stool behind the wheel all the while in port. Just sat there smoking his pipe, now and then condescending an answer to some respectful question hurled at him from numerous admirers grouped conveniently on shore for no other reason than to admire and hurl questions.

We swing a circle about the harbor. Graze schooners and canoes. Then we skip through the pass and on to the ocean again.

It's calmer now. The afternoon wind has died down. But the swells are rolling in, smooth but high. We cut over them as if on a roller coaster. Great fun for all except a few of the womenfolk who suddenly decide they'll lie down in the cockpit and rest quietly for a while. For some strange reason, Polynesian men are good sailors, but the women are notoriously poor ones.

Half way between Tahiti and Moorea something happened that created grave doubts in my mind. Mr. Philips had emerged from the engine room for a breath of air. Together we were standing watching the spray leap before the cut of the bow. Suddenly a long, thin shape leaped out of the water and went sailing off through the air. I looked from it to Mr. Philips. He looked from it to me. Then we both asked each other if we dared trust our own eyes.

What I saw was something that looked like a snake four or five feet long. The after part hung limply down and to one side. But the forward third of the creature seemed to have, not wings, but broad flaps of skin that were spread out like wings on either side. The flaps did not move. Nor were they held rigidly out. Seemed concave on the under side. Had enough surface to carry the creature fifty feet or so. A flying snake.

Mr. Philips said he saw the same thing I did but thought the heat of the engine room had got him. We asked Imi. Yes, Imi had seen it. Had seen them before. Not often, but several times. They were flying sea snakes. And they flew by getting up tremendous speed under water and hurling themselves through the air for quite a distance. "Great flying sea snakes!" That's a favorite expression of mine now. I have often meant to check up on these flying sea snakes at some natural history museum, or through some expert on the subject. But somehow I never got around to it. But what we saw — sober — sane — both of us, was a sea snake that flew. I'll take my oath on that.

Shortly after we got another little thrill. Half a mile or so before we would turn in through the pass in the reef that leads into our bay the motor stopped. Instantly Mr. Philips was in the engine room. But the motor would not start again.

Nothing to get excited about. The sea was smooth. We rode easily up and down on the long swells. But the motor would not start.

We were chatting and laughing away in the cockpit. No one dared poke his head into the engine room. The swells carried us up and down. It was restful, the motion. Then someone happened to notice the sound of surf was pretty loud.

It *was* loud. And the sound of surf came from the big Pacific rollers breaking on the reef just about fifty feet from where we were sitting. The rollers had been carrying us in toward shore and on to the reef faster than we realized. A few more minutes and we would be on the reef itself.

The native mind works in a peculiar manner. We had big sweeps on board for just such an emergency. The natives knew what to do. But we weren't actually on the

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EASTWARD

47′ 6″ o.a.—34′ 6″ w.l.—11′ 8″ Beam—6′ 5″ Draft

Auxiliary — 7½ Knots under power. Since building for ourselves in 1927 the first ***Eastward,*** five of these handsome little schooners have been sold, as follows:

Sandy Moffat — Commodore, Mass. Bay Division, Cruising Club of America.

James R. Offield — President Lake Shore Athletic Club, Chicago.

W. Stuart Glazier — Eddy Bros., Hartford, Conn.

Ward Robinson — Lake Shore Athletic Club. Chicago.

Frederic M. Gardiner — Beverley Farms, Mass. who sailed the Primrose to Europe and return.

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This seagoing auxiliary yawl has all the characteristics of the Schooner Eastward. Fine for cruising or racing, both of these yachts ***Very Reasonably Priced.***

Read what owners and Captains have to say about them.

Capt. Egan — who took both Schooners to Chicago. "Hove-to—45 hours in gale — sailed 125 miles — blowing 50 miles hour — best sea boat ever stepped on."

Sandy Moffat — "Of the 10 yachts I have owned — this is certainly the best mannered."

Fred Gardiner — "Just my idea — her lines are great."

Ward Robinson — "Won from Yawls, Schooners and Racing Machines. She is great and very able."

W. Stuart Glazier — "Raced against a 70′, also a 45′ schooner, beat the smaller boat 25 minutes, boat for boat, the larger by 10 minutes on time allowance — lead her to the last mile when wind dropped."

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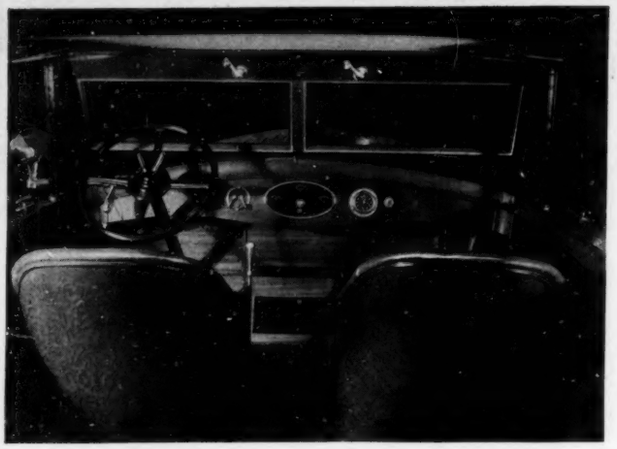

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You will find in the 1930 Gar Wood the consummation of however many centuries of boat building there may have been since Noah laid down the Ark.

Your first glimpse of this last word in seagoing craftsmanship is an invitation to come aboard. Yield to that urge to slip behind the wheel. Settle into the luxuriously deep lounge-chair and take this glistening little dream ship out on a "thought cruise".

Imagine the envy and admiration of all beholders as you round to handsomely at the club landing on regatta day. Feel the exaltation of cutting cleanly and smoothly through the short sullen seas on a lowering, gusty day, the thrill of skimming the long ocean swells outside, nonchalantly, easily, confidently.

Know the pride of having THE boat that will take your guests, dressed for the evening, wherever they may wish to go, that will transport them pleasantly and comfortably regardless of the weather.

There is a zestful modernity in the crisp sophisticated lines, the stream-lined fittings and bold sweeping curves. There is a responsiveness, an ease of control, a riding softness, a luxury of appointment that goes beyond what even Gar Wood craftsmen have produced heretofore. Come aboard—at the New York Show.

Model "30"	- - $ 3,150	- $ 3,650
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reef as yet. Why worry? They thought Llew and myself a little over anxious when we began getting those sweeps overboard. And when we began to tell them in no uncertain words to lay a hand and pull, they did so; but only did so to oblige us, with an air of amused tolerance.

And still the boat drifted nearer the reef. It wasn't funny any longer. Even the natives began to see that. We pulled on the sweeps for all we were worth now, even the women helping. We checked the drift. We held our own against the pull of the rollers. But we couldn't make headway — and the combers were breaking on the reef only a matter of a few yards away. We pulled and pulled. We began to make headway. We strained on those sweeps and bent them at every pull. A little more headway. The sweat was running off every man there. How long could we keep it up? We were edging sideways toward the pass, nose out to sea. Once opposite the pass we could let ourselves drift through, guiding ourselves carefully against getting into the combers on either side. Could we keep it up until then? We strained and strained — and then the engine picked up. The clutch went in, and out toward the open sea we shot.

Mr. Philips came out of the engine room. He looked at the combers behind us and his face paled a little. He had not known of the danger. We had not told him while he was working on the engine. But now he saw it — and said nothing. We had missed piling up on the reef by minutes.

Imi swung the boat around in a circle. We came about and shot through the pass. He raised his hand and shook his fist at the combers curling over and dropping with a crash on the coral. Even Imi had been roused out of his stoical calm. A bed on a reef is all too often the end of the tale of most South Sea craft.

Round to the wharf we swung. Throttle down. Clutch out. We nuzzle up to the wharf. Bow line fast. Stern line fast. Our danger of the moment forgotten. Natives swarm down to the wharf. Our crew and passengers scramble on to the wharf. Shouting. Laughter. Banter. Horse play. Hatches are fastened. Tarpaulins lashed down. Everything fast for the night.

As we made our way along the wharf and up through the clump of burao trees toward the Chinese store I noticed Imi was carrying his coat with him. Evidently he was not figuring on doing any helm work next day. I wondered why. Later I learned.

We didn't take a spin in the *Tuaraatai* next day. Nor the next. Nor the next.

And three weeks later when I was leaving Faatoai on my way to Papeete to catch the steamer back to San Francisco, I noticed the *Tuaraatai* was still tied up just the way we had left her. Llew and I were going to Papeete on the regular weekly schooner. It was on my lips to ask Llew why his father didn't use the *Tuaraatai* more than he did. But I thought better of it. I think Llew saw the question in my eyes, but he said nothing.

For all I know the *Tuaraatai* is still tied up just as I saw her last. Perhaps Mr. Philips suddenly decided to take another spin. Or perhaps he decided to pull her out of water and into her shed again. And then, perhaps he suddenly decided to launch her again. I don't know. I'll find out next time I go down there.

Lake Michigan Yachting at Flood Tide

(*Continued from page 78*)

and *Altair*, sailed in a brisk nor'easter, *Orn* was trailing the first time round the 12-mile course. However, clever handling brought her home in front to capture this historic trophy. *Altair* ended the season a good second in all events, as well as in the championship standing.

In the Pup Class Dr. Howard Wakefield, a newcomer to the game, surprised even his closest friends when he

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New in style and grace, luxurious in appointments, refined in structure, each of its components so manifestly chosen with a view to fitness and quality rather than price, the 1930 Baby Gar "40" brilliantly expresses the ideals of its world-famous maker. And for the fourth consecutive year a SCRIPPS motor provides the smooth, rhythmic power which imparts to this outstanding craft those qualities of spirited action, unfailing reliability, and eager response to every whim of the operator, which are among its greatest attributes.

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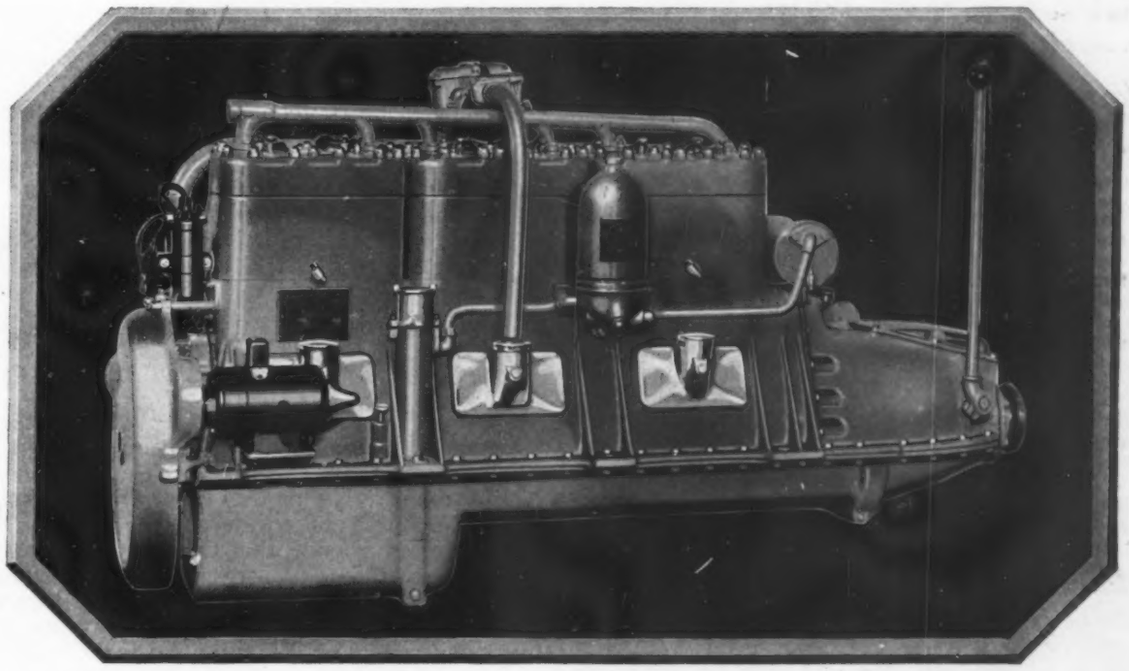

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THE OLGA . . . built for C. Bai Lihme, Esq. . . . is one of the most beautiful Luerssen yachts afloat. 75' overall, her graceful low lines . . . her streamline hull . . . the arrangement of her deck houses . . . give her an appearance of a much larger yacht.

Two owner's staterooms with two baths, large glass enclosed deck house, large bridge deck, pleasant after cockpit semi-enclosed, large forward cockpit and ample crew's quarters. The interior decorations were selected by Mrs. Lihme . . . adding just the personal touch that makes THE OLGA essentially Mr. Lihme's yacht, as is every Luerssen craft utterly and completely that of its owner.

THE OLGA is powered with two 600 h.p. directly reversible MAYBACH gasoline engines attaining a speed of better than 30 m.p.h. with absolutely NO VIBRATION OR NOISE at any speed.

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handled his trim little puppy *Ri-Ri* like a veteran, capturing the Gehrman Trophy and the season's championship. This briefly covers the series racing.

In the other major events *Jonnie* (ex-*Ardelle*) won the Lipton Cup. A series of three races for Class R boats is held each season for this coveted trophy and it was thought at first that Bill Faurot's *Fantome* had earned the decision. A protest lodged by *Jonnie* was sustained, and she was returned the winner. William Giaver, her owner and skipper, while no newcomer to yacht racing, was at the helm for his first season in this particular class, and his work stamps him as an outstanding skipper in this division. It will be remembered that this boat, as *Ardelle*, and sailed by Clark Wright, represented Lake Michigan last year in the international series for "R's" held at Rochester.

The next event of importance following the Lipton Cup Series was the Eighteenth Annual Race to Black Lake, held on August 30th. A distance of 90 miles and return, this brought out an unusual number of entries. Two prizes were awarded for the first leg of 90 miles, the Dreadnaught Trophy and the Col. R. H. Morse Trophy. Ex-Commodore Hollis E. Potter's *Calypso* won both in fine fashion, beating Bill Giaver's *Jonnie* to port by one minute and 33 seconds on corrected time. To prove that this victory was no fluke *Calypso* repeated the operation on the return voyage to Chicago, this time beating *Jonnie* by 29 minutes and 45 seconds. This gave *Calypso* the Universal Time Prize, the Dreadnaught Trophy and the Col. R. H. Morse Trophy over a field of eleven entries. In the yawl and schooner class Bob Benedict's *Bagheera*, which won in the Cruising Division of the Mackinac Race, flew the burgee of the Cruising Club of America to victory in this division and captured the Hamilton Club Trophy.

The Class Q boats are largely owned by the Jackson Park Yacht Club, but the Chicago Yacht Club has a "Q" in its fleet that has made tradition on the Lakes. Olie and Al Karas' *Siren*, twice winner of the Mackinac Race, participated in both the Virginia and Lutz Trophy Races. Winning the Virginia Trophy and taking second honors in the Lutz Series, as well as numerous firsts in the major regattas stamps her as one of the outstanding boats in this class for the season of 1929.

This brief summary of activities at the Chicago Yacht Club alone may give the reader some impression of how seriously these sailors take their yachting in Chicago.

Penguin, a Single-Handed Auxiliary Cutter

(*Continued from page 87*)

life boats. The fundamental feature of this system is the athwartships pipe, open at both ends. The exhaust is admitted to this pipe by a "T." On either tack, therefore, one side is out of water, and so seldom are both outlets covered at once, that there is never an appreciable instant when the exhaust is not free. Any water entering one outlet will run out the other rather than up around the "U" and into the engine. This system has proved very successful on *Penguin;* and if the outlets are covered with underwater heads, the exhaust gases do not blow up and over the boat under any conditions.

Penguin was built last winter by Wesley Mahan, of Pemaquid Harbor, Maine. Due to our early start, Mahan had plenty of time in which to build her, and completed her long before I could take delivery. Although neither I nor any one else exercised one moment of supervision, the boat was delivered complete and according to the plans, down to the smallest detail. The work was all done skilfully and thoroughly, and with a friendly interest that I shall never forget, so from the very start, *Penguin's* career has been a joy to her owner.

Four identical Chris-Craft stage a cleanup in the President's Cup Regatta at Washington.

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28 ft. Chris-Craft with Kermath 200 H. P. engine wins at Newport Regatta.

PROBABLY never before such a clean sweep in the history of stock runabout racing. Four major events of the year were won by Kermath-powered Chris-Craft.

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Not just a single victory—but a complete series of unqualified achievements in the realm of motor boating. ¶ This is a singular, consistent and outstanding demonstration of the speed qualities of both the Kermath "200" and the Kermath "150". ¶ Is not this the type of engine you should have in that smart speed boat you have—or desire? ¶ Let us send you further illuminating facts on all Kermath models.

Dr. Sanborn of Detroit winning 200 H. P. class at Detroit Regatta Kermath powered.

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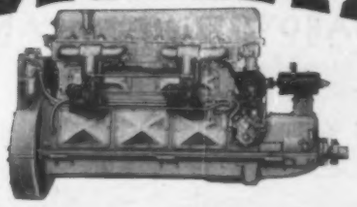
90 King St. W. Toronto, Ontario

KERMATH



"A Kermath Always Runs"

marine supplies in FLORIDA?

rely on HOPKINS CARTER

Palm Beach or Miami

Glistening nickel, brass — Wilcox, Crittenden Hardware — Erico-Kainer specialties — Lebby searchlights—Hyde propellers. . . . . .

A PAINT DEPARTMENT FOR BOATS

When crafts must be shipshape for the regatta, Hopkins-Carter can fill your paint requirements. The familiar brands are in stock —Woolsey's - Smith's - U.S.N. —Valspar—any boat paint that has made its reputation. . . . . .

GULF STREAM TACKLE

Excellent fishing equipment is a matter of pride with Hopkins-Carter. Our stock comprises remarkably fine rods and reels for the man who goes out to the Gulf Stream. Here are a hundred fishing accessories to engage your interest. . . . . .

JOHNSON MOTORS AND SERVICE

There are days and nights on Biscayne Bay when the lucky man has a Johnson outboard. Our service department will keep your motor in excellent condition—tuned for cruising or racing. . . . . .

THE HOPKINS-CARTER HARDWARE COMPANY

Marine Supplies

Miami Palm Beach Miami Beach

Yachting on the Riviera

(*Continued from page 43*)

family and friends out in the third and fastest one.

For cruising, the popular type seems to be the ketch in sailing craft and the converted M. L.'s or Sub-chasers for power boats; the M. L.'s being the Continental version of the American S. C.'s, although smaller, lighter and of quite shallow draft. They are not very good sea boats, so they hug the shore and spend much of their time in port, but during the summer months they are seen in numbers all along the Riviera. This year, for the first time since the war, a yacht flying the German flag has appeared, but in the larger harbors one may see flags from Greece, Roumania, Albania, Argentina, Brazil, Turkey, South Africa, Canada, Australia, Russia (the old flag!), Italy, Spain, England, Holland, Belgium, Denmark, Norway, Sweden, America, and France. It is international yachting at its peak.

The racing yachts include all the international and Continental types, the most popular being the eight- and six-metres, the eight-fifties and six-fifties (over all), and the Minimas. There is also a large class of the French Regional Five-Metres, flat centerboard sloops with roller jib and gaff mainsail, which are pulled out on the beaches at the smaller places, and where there is no harbor. The little Minimas at Cannes, brought down a few years ago from Le Havre and Dives in Normandy, on the Channel, have proved such a splendid training school for the youngsters that an order has been recently placed for nine International Stars, so that Cannes has joined the Star fleets and thus is in closer touch than ever with the American yachting world. As there is a steadily growing market for racing and cruising yachts here, you can own one for a month or two and sell it again quite easily; or if you prefer, you may charter one for any period. The costs are about half of what they are in America, the Minimas running about $240.00 complete with anchor, oars, etc., the Stars about $475.00, and others in proportion. Charters, crews, food and other expenses are one-half to one-third of what they would be in the United States.

There are a number of yacht clubs along the coast, some of them fifty to sixty years old, the oldest being the Union des Yachtsmen de Cannes, and all of them active in promoting the interests of yacht racing. They are combined under the "Federation des Yachts-Clubs de la Côte d'Azur" which holds each year, from February to April, an international series, taking each port in turn for a few days' racing, and extending from St. Raphael to Genoa. Four regular classes are raced each day and at each place, six- and eight-metres and the six-fifties and eight-fifties, with cruiser and local classes.

A warm welcome is waiting for American yachtsmen who come here for a short stay or a long one, and plenty of good sport is assured. The future may yet see an International Star in the championships off Marblehead, or New Orleans, or Santa Barbara, flying the burgee of the Cannes Star Fleet.

The Millennium for Outboards

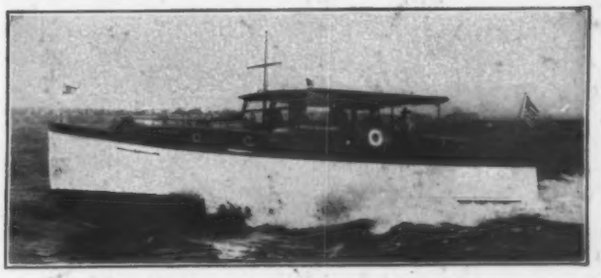
(*Continued from page 50*)

quires the carrying of an approved life-saving device for each person on board outboards operated on navigable waters. In this particular respect, the existent obligations might even be improved by penalizing severely motor boat operators who violate this requirement. So, too, it is believed that on every craft on which gasoline

Two WHEELER PLAYMATES *New*

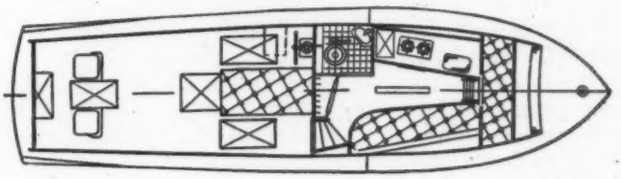
WHEELER PLAYMATES

33-foot Super Playmate



40-foot Senior Playmate

THESE two new Wheeler models are the result of a demand for larger boats conforming to the well-known Wheeler standards. They are among the *fifteen* new models we are announcing for 1930. They are speedy, in every way seaworthy, built of the best materials available and are equipped with every modern convenience. Already they have met with a most enthusiastic reception. Let us send you complete details, or, visit our Plant and see for yourself how quickly and satisfactorily we can settle the question of your next year's boat.



NEW 33-FOOT FAST FISHING CRUISER

Speed 15-28 m.p.h.

An ideal boat for the exacting requirements along the open coast and especially in Florida. A fast, exceptionally seaworthy, handy Fishing and Sport Cruiser.

FLORIDA REPRESENTATIVES
COUZENS & DALY
29 Hotel McAllister Arcade, Miami, Florida

1930 MODELS

39'11" x 11' — Single, Sedan and Double Cabin Models
36' x 10' — Single, Sedan and Double Cabin Models
33' x 9'6" — Single and Double Cabin and Sport Models
29' x 9'3" — Single and Short Cabin and Sedan Models
26' x 8'2" — Single and Short Cabin and Sedan Models

$2,500.00 — $12,750.00

47' x 12' — New, Custom design, Single and Twin-screw

Prices on Application

Write for Catalog "B"

WHEELER SHIPYARD

FOOT HARWAY AVENUE
Brooklyn, N. Y.
Tel.: MAYflower 7600

A "Big Shot" in '55—

In 1855, in a little shipyard at Mystic, Connecticut, was built and launched an American clipper ship named for our illustrious President, "Andrew Jackson." To the glory of these shipbuilders in 1860 she wrested the speed championship from the "Flying Cloud" in a race from New York to San Francisco around Cape Horn, making the run in 89 days and 4 hours, or 4 hours faster than the record of her fleet rival.

Today, seventy years later, in this same yard are being built SEVEN SEAS CRUISERS, the last word in motor yacht luxury, speed and comfort. Fifty feet overall, individually decorated by grace of Joseph Urban, and powered with twin Sterling Engines, these SEVEN SEAS CRUISERS are the proud work of the skilled craftsmen whose forefathers gave us the "Andrew Jackson" and other famous Mystic ships. A product of the ALMAC YACHT CORPORATION, Louis O. Macloon, President. Inspection at the plant or correspondence invited. Two of these SEVEN SEAS CRUISERS will be ready for delivery in Southern waters during January.

Note—Painting by Lars Thorsen, celebrated marine artist of Mystic.

is used satisfactory means for extinguishing burning gasoline should be carried at all times. There is no reason for making an exception in the case of outboards.

Only the operator of an outboard-propelled craft, especially if the hull is but an ordinary skiff, can appreciate the difficulty of keeping lighted and in their proper places a regulation combination red-and-green lantern forward and a white light aft. Especially is this true in choppy water or when a single person must operate the craft and look after the lights. The present purposes of the law can be met satisfactorily and a vast measure of relief afforded by requiring but one running light, a white light so placed as to be visible all around the horizon.

The second plank of our proposed platform is, therefore, that only the following equipment be required: (1) One approved life-saving device for each person on board. (2) Approved means for extinguishing burning gasoline. (3) One white running light (between the hours of sunset and sunrise).

In respect to the actual navigation of outboards on navigable waters, the law requires that each boat be provided with two copies of the Pilot Rules. The writer believes that outboards no longer should be required to carry these in view of the fact that they serve no practical purpose. The law does not require that the books be read. The situations and problems set forth, moreover, are not met commonly by operators of outboards. The books themselves are easily torn, lost or become so wet as to be illegible. The third plank of our platform then becomes — no outboard-driven craft should be required to carry copies of the Pilot Rules.

Operators of outboards, just as are the operators of all other motor-driven craft, are forbidden to carry passengers for hire on navigable waters without first procuring a federal license. The required license is granted upon formal application and without examination, is revoked for only a few grave reasons, and calls for renewal but once every five years. It is evident that people who pay for transportation on water (even if the distance is but a few hundred feet) are entitled to all the safeguards which the law can provide. It is believed, therefore, that the present restrictions should be maintained. If any changes are made they should be in the nature of further restrictions, together with a general tightening up of existing provisions. The fourth and final plank in the proposed platform is that the use of outboards for the carrying of passengers for hire shall be permitted only when the craft is in charge of an operator who possesses the necessary license.

It must be conceded that the creation and enactment of a new set of regulations for the special control of outboards is only one of the legislative needs of the motor boating sport. The drawing up of a new and more sensible schedule of penalties, a more exact definition of what constitutes a violation of law, more rapid and more certain collection of fines, and the fixing of blame for violations, are but some of the points which demand reform. But no change is more urgent than the enactment of a revised code of regulations. It is imperative that criticism assert itself and bring fulfilment to the hopes of outboard owners. Outboard owners have their own powerful organizations; they possess all the necessary data and have available the machinery to convey expression of their wishes and views to the proper legislative bodies.

The outboard sport has now reached the stage at which no single circumstance can advance its popularity as much as the enactment of regulations born of experience and created especially for the solution of the problems peculiar to it. Only upon the passage of such a code of regulations can it truly be said that the outboard sport is on the threshold of its millennium.

Of Interest to the Skipper

(Continued from page 96)

In New Building

When you want to get a steerer for that new boat you are planning, don't send the order to the old address, but to 49 D Street, South Boston, where the Edson Manufacturing Corp. now occupies its new building. This concern has been manufacturing a fine line of steering gears for sailing craft for many years and, since the advent of the motor boat, for engine-driven craft also. Steerers to meet the yachtsman's every need will be found among the Edson output.

Huss Joins Kermath

J. B. Farr, president of the Kermath Manufacturing Co., of Detroit, announces the appointment of Dwight B. Huss to the sales and engineering staff of Kermath. Since 1902 Mr. Huss has been identified with the automotive field. He was first with

Dwight B. Huss, recently appointed to the staff of the Kermath Manufacturing Co.

Oldsmobile as a technical engineer and later in the experimental department of the Hupp Motor Car Co., afterwards becoming associated with the sales and engineering staff. He brings to his new firm a ripened experience and a first-hand knowledge of the marine field gained afloat, for he has always been an ardent yachtsman. He will maintain close contact with Kermath's wide-spread dealer organization and aid in the solution of vexing sales and service problems.

"For Safer Navigation"

With this slogan on every page, the National Marine Lamp Co. has issued one of the most attractive catalogs that has come to our notice. In addition to the countless items covering lamps, signals and fittings of all sorts, the international and the inland rules of the road are printed in full, with the suggestion of the proper item of equipment to meet the needs in each case. The circular containing the motor boat regulations is also given in its entirety and a brief article on lighting the small boat. The catalog is tastefully gotten up and will be of interest to every boatman.

Are White Teeth Impostors?

4 out of 5 say, "yes!"

Though too few of us realize it, teeth of gleaming whiteness do not signify immunity from diseases that take high toll in health from 4 persons out of 5 after forty and thousands younger.

NO favorites are played. Pyorrhea and other gum diseases treat everybody alike. They ignore teeth and attack gums. And unless forestalled they ravage beauty and youth. They hurry the destruction of health and teeth. If contracted, only dental treatment of long duration can stem their advance.

But modern dentistry brings you protection. If you will let him, your dentist can preserve the health of teeth and gums. See him at least once every six months. And between visits brush teeth and gums vigorously, every morning and every night. Of course, to obtain the best result, you should use a dentifrice that is good for both teeth and gums.

Forhan's is such a dentifrice. After using it for a few weeks you will note a distinct improvement in the appearance of teeth and gums. For it cleans teeth and helps to protect them from decay. In addition, it helps to firm gums and keep them sound. As you know, such diseases as Pyorrhea seldom attack healthy gums.

If you agree that prevention is better than cure, add the daily use of Forhan's and a semi-annual visit to your dentist to the routine of life. It is economy. Get a tube of Forhan's from your druggist, today. Two sizes, 35c and 60c. Forhan Company, New York City.

Forhan's for the Gums is far more than an ordinary tooth-paste. It is the formula of R. J. Forhan, D. D. S. It is compounded with Forhan's Pyorrhea Liquid used by dentists everywhere. You will find this dentifrice especially effective as a gum massage if the directions that come with each tube are followed closely. It's good for the teeth. It's good for the gums.

New . . . Forhan's Antiseptic

It's the Perfect Mouthwash. *It sweetens breath and taste and refreshes mouth. It is good for sore throat. It is a safe, pleasant antiseptic mouth-wash, that has no tell-tale odor. Try it.*

Forhan's
FOR THE GUMS

YOUR TEETH ARE ONLY AS HEALTHY AS YOUR GUMS

Banfield "32" Runabout has a seating capacity for fifteen people. Spacious aft cockpit has room for placing wicker or folding chairs for additional guests. Powered with 200 h.p. Sterling or Kermath engine. 30-33 m.p.h. $6,500.

Banfield "32" Standard Cruiser has over-night accommodations for four people. Powered with 106 h.p. Chrysler, 20-22 m.p.h. $6,250. Powered with 200 h.p. Sterling or Kermath engine 28-30 m.p.h. $7,250.

Your Next Boat

BANFIELD SEA-SKIFF

As your boating education progresses you will realize as others have that the BANFIELD SEA-SKIFF is the one boat which gives a perfect blending of safety, comfort, sea-ability, ruggedness and durability. It is the boat to which you will eventually turn for the acme in all-around boating satisfaction. For cruising, commuting, fishing, pleasure outings or tender service there is no boat better fitted for the purpose.

Banfield boats offer the only complete line of cruisers and runabouts employing the fundamental and proven safety principles of genuine dory sea-skiffs. They are the safest high-speed boats for deep-water service.

In the Banfield line for 1930 you have a selection of nine models in a wide price range. Six cruisers: —four thirty-two footers, single and double cabin with accommodations for four to six people, and speeds up to 30 miles an hour. Two thirty-eight foot cruisers, single and double cabin, with accommodations for six to eight people, and speeds up to 22 miles an hour. Three runabouts: twenty-two, twenty-six and thirty-two footers, seating eight to fifteen people, and speeds up to 38 miles an hour.

Banfield Sea-Skiffs are built of finest selected materials. For example, all planking is clear mahogany with copper rivet and brass screw fastenings to steam bent white oak frames. All hardware and metal trim is of brass. Monel metal shafts and Goodrich Cutless bearings are standard equipment on all models. DeLuxe model cruisers are equipped with built-in Lux fire protection system.

The new Banfields are priced from $2,750 to $15,000. You may purchase a Banfield out of income instead of capital. A nominal initial payment makes you the owner of world's finest sea-skiff.

Immediate Delivery for Southern Season

WRITE TODAY FOR DETAILED DESCRIPTIVE FOLDER

BANFIELD SEA SKIFF WORKS INC.

SALES OFFICES AND PERMANENT EXHIBIT

277 Park Ave. Bldg. - ENTRANCE 502 LEXINGTON AVE. - New York City

PLANT: ATLANTIC HIGHLANDS, NEW JERSEY

LARGEST BUILDERS OF SEA SKIFFS IN THE WORLD

Banfield "32" DeLuxe cruiser has over-night accommodations for four, plus forward cockpit. Equipment includes built-in Lux fire protection system. Powered with 106 h.p. Chrysler, 20-22 m.p.h. $6,950. Powered with 200 h.p. Sterling or Kermath engine 28-30 m.p.h. $7,950

Banfield "26" Runabout has a seating capacity for twelve people. Powered with 106 h.p. Chrysler 22-25 m.p.h. $4,250. Powered with 200 h.p. Sterling or Kermath engine, 35-38 m.p.h. $5,500

O. M. C. Chooses Vice-President

Announcement of the election of Dean Chadbourne as vice-president in charge of sales and advertising is made by Outboard Motors Corporation, manufacturers of Elto, Evinrude and Lockwood motors. Mr. Chadbourne has been identified with the industry for a number of years. He is a graduate of Purdue, and for a considerable time was general manager of the Westinghouse Electric International Co. He has had a broad experience in both the foreign and domestic fields and is confident that foreign demand for American outboard motors can be greatly developed.

Since the organization of the corporation many steps have been taken towards concentrating all activities at a central plant, thereby effecting many economies in administrative as well as manufacturing expense. Several months ago the engineering forces

Dean Chadbourne, in charge of sales and advertising of the Outboard Motors Corp.

of the three component companies were brought together in Milwaukee. At present a large addition to the Evinrude plant is nearing completion. It will be equipped with the most modern machinery for manufacturing and testing outboard motors. Both the Elto Division of Milwaukee and the Lockwood Division of Jackson, Michigan, will be moved to the new plant.

Dunphy Moves

Having outgrown its old quarters on Water Street, Eau Clair, Wis., the Dunphy Boat Manufacturing Co. has moved into a new location on Menomonie Street, where it has acquired a tract of about 16 acres with buildings having an area of over 25,000 square feet. Upon the completion of the installation of the machinery, the firm will have a most modern plant. The 1930 line of Dunphy boats will have interesting additions.

Floor Space Increased

At its factory at College Point, L. I., the Edo Aircraft Corporation has added more than 17,000 square feet to the floor space of its pontoon department. Additional machinery for economical construction has been installed, most of it specially designed and built. A pontoon float 30 feet long may now be dipped at one operation and a special spray with 30 nozzles is used to wash the pontoons after dipping. Among other improvements are a new paint room and a new runway.

WHY FAMOUS MEN OF THE DAY USE BARBASOL

FLORENZ ZIEGFELD

. . . Glorifier of feminine pulchritude, creator of superb musical productions.

"I insist on shaving quickly, in comfort"

"Without the old-fashioned props, brush, lather and rubbing, Barbasol gives a perfect shaving performance quickly and leaves the skin feeling soft and refreshened."

Florenz Ziegfeld

BARBASOL does for shaving what brushing, lathering and rubbing never could do. That's why prideful, comfort-loving men use this modern shaving cream.

There's nothing like it

No time-wasting mess. You just squeeze a bit of Barbasol from the man-sized tube and lightly spread it on the face as your barber spreads a massage cream. Then shave. From the first smooth sweep of the razor to the last, it's a succession of surprises. There's no razor pull, no scratching, no nicking. Barbasol does away with that. As it smooths the razor's path, it softens the skin, soothes it, cools it. You get a clean, close shave so easily. And when you've finished, the face looks as refreshed as it feels. Here's how it's done: 1: Wash the face (leave it wet). 2: Spread on Barbasol (don't rub). 3: Shave—dry the face. That's all.

In a mere fraction of the usual time . . . you have the cleanest, smoothest and by far the most comfortable shave you ever had!

Today, get a tube of Barbasol from your druggist. Two sizes, 35¢ and 65¢. And tomorrow morning, step into the bathroom and treat yourself to this "who's who" shave. Your face will enjoy it and so will you. The Barbasol Company, Indianapolis, Ind.

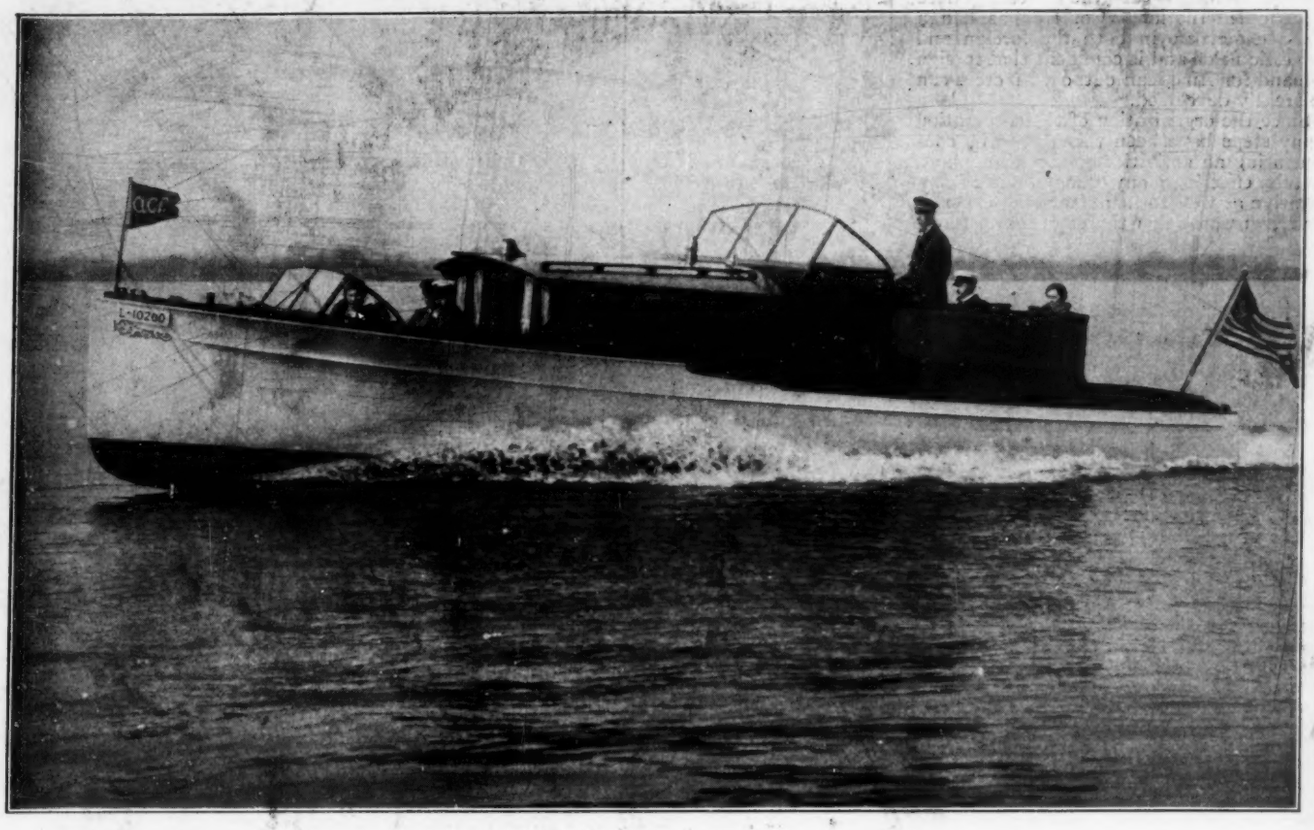
Women like their men

young looking, bright and keenly fresh looking. Men like to be this way too. New Barbasol Skin Freshener cools, revives, freshens. Douse it on the face—after shaving—whenever tired. Nothing better . . . you'll agree!

Barbasol
For Modern Shaving
No brushing—No lathering—No rubbing

TAKE A MINUTE TO LOOK OVER

THE NEW a.c.f. 38′ EXPRESS CRUISER



Here is a new cruiser, built to give you sheer enjoyment of every moment you spend aboard! It gives you speed and comfort. It is both a play boat for summer daytimes and a cruiser.

Under way, its two perfectly synchronized eight cylinder a. c. f. engines deliver twenty-five silent, vibrationless miles each hour, without the slightest effort or strain. They are centrally controlled, responding instantly to your direction.

The "38" is a large boat, yet it manoeuvers with an almost uncanny ease . . . at maximum speed, in the roughest of blows, and when making landings in confined waters.

Cockpits . . . fore and aft . . . are roomy for lounging and sports. The cabin has every comfort for cruising . . . full size berths, compact galley, a large lavatory and toilet room. The "38" is complete in every way, ready to take to sea immediately. It is a real boat, that won't disappoint you. We'll tell you a lot more about it if you'll write.

a.c.f.